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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended January 31, 2022

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number: 001-39504

SNOWFLAKE INC.

(Exact name of registrant as specified in its charter)

Delaware	**46-0636374**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

Suite 3A, 106 East Babcock Street
Bozeman, MT 59715
(Address of principal executive offices)[1]
(844) 766-9355
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, $0.0001 par value	SNOW	The New York Stock Exchange

Securities registered pursuant to section 12(g) of the Act: Not Applicable

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☒

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Small reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of voting stock held by non-affiliates of the Registrant on July 30, 2021 (the last business day of the Registrant's fiscal second quarter), based on the closing price of $265.72 for shares of the Registrant's Class A common stock as reported by the New York Stock Exchange, was approximately $76.1 billion.

As of March 18, 2022, there were $314.6 million shares of the registrant's Class A common stock, par value of $0.0001 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement relating to the 2022 Annual Meeting of Stockholders are incorporated herein by references in Part III of this Annual Report on Form 10-K to the extent stated herein. Such Proxy Statement will be filed with the Securities and Exchange Commission within 120 days of the registrant's fiscal year ended January 31, 2022.

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[1] We are a Delaware corporation with a globally distributed workforce and no corporate headquarters. Under the Securities and Exchange Commission's rules, we are required to designate a "principal executive office." For purposes of this report, we have designated our office in Bozeman, Montana as our principal executive office, as that is where our Chief Executive Officer and Chief Financial Officer are based.

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SPECIAL NOTE ABOUT FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, (Securities Act), and Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act), about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this report, including statements regarding our future results of operations and financial condition, business strategy, and plans and objectives of management for future operations, are forward-looking statements. In some cases, forward-looking statements may be identified by words such as “anticipate,” “believe,” “continue,” “could,” “design,” “estimate,” “expect,” “intend,” “may,” “plan,” “potentially,” “predict,” “project,” “should,” “will,” “would,” or the negative of these terms or other similar expressions. These forward-looking statements include, but are not limited to, statements concerning the following:

- our expectations regarding our revenue, expenses, and other operating results, including statements relating to the portion of our remaining performance obligations that we expect to be recognized as revenue in future periods;
- our ability to acquire new customers and successfully retain existing customers;
- our ability to increase consumption on our platform;
- our ability to continue to innovate and make new features generally available to customers;
- our ability to achieve or sustain our profitability;
- future investments in our business, our anticipated capital expenditures, and our estimates regarding our capital requirements;
- the costs and success of our sales and marketing efforts, and our ability to promote our brand;
- our growth strategies for, and market acceptance of, our platform and the Data Cloud, as well as our ability to execute such strategies;
- our ability to successfully integrate and realize the benefits of strategic acquisitions;
- our reliance on key personnel and our ability to identify, recruit, and retain skilled personnel;
- our ability to effectively manage our growth, including any international expansion;
- our ability to protect our intellectual property rights and any costs associated therewith;
- the effects of the ongoing COVID-19 pandemic or other public health crises and their related public health measures on our business, the business of our customers and partners, and the economy;
- our ability to compete effectively with existing competitors and new market entrants; and
- the growth rates of the markets in which we compete.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this Annual Report on Form 10-K.

Forward-looking statements are based on our management's beliefs and assumptions and on information currently available. These forward-looking statements are subject to a number of known and unknown risks, uncertainties and assumptions, including risks described in the section titled "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Other sections of this Annual Report on Form 10-K may include additional factors that could harm our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for our management to predict all risk factors nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ from those contained in, or implied by, any forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. We cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this report or to conform these statements to actual results or to changes in our expectations. You should read this Annual Report on Form 10-K and the documents that we reference in this Annual Report on Form 10-K and have filed as exhibits to this report with the understanding that our actual future results, levels of activity, performance, and achievements may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

Investors and others should note that we may announce material business and financial information to our investors using our investor relations website (investors.snowflake.com), our filings with the Securities and Exchange Commission (SEC), webcasts, press releases, and conference calls. We use these mediums, including our website, to communicate with investors and the general public about our company, our products, and other issues. It is possible that the information that we make available on our website may be deemed to be material information. We therefore encourage investors and others interested in our company to review the information that we make available on our website.

SELECTED RISKS AFFECTING OUR BUSINESS

Investing in our common stock involves numerous risks, including those set forth below. This summary does not contain all of the information that may be important to you, and you should read this summary together with the more detailed discussion of risks and uncertainties set forth in the section titled "Risk Factors" included elsewhere in this Annual Report on Form 10-K. Below are summaries of some of these risks, any one of which could materially adversely affect our business, results of operations, and financial condition. In that event, the market price of our common stock could decline, and you could lose part or all of your investment. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business. You should not interpret our disclosure of any of the following risks to imply that such risks have not already materialized.

- We have experienced rapid revenue growth, which may not be indicative of our future performance, and we have a limited operating history, both of which make it difficult to forecast our future results of operations.
- We may not have visibility into our future financial position and results of operations.
- We have a history of operating losses and may not achieve or sustain profitability in the future.
- The markets in which we operate are highly competitive, and if we do not compete effectively, our business, financial condition, and results of operations could be harmed.
- If we fail to innovate in response to changing customer needs and new technologies and other market requirements, our business, financial condition, and results of operations could be harmed.
- If we or our third-party service providers experience an actual or perceived security breach or unauthorized parties otherwise obtain access to our customers' data, our data, or our platform, our platform may be perceived as not being secure, our reputation may be harmed, demand for our platform may be reduced, and we may incur significant liabilities.
- We could suffer disruptions, outages, defects, and other performance and quality problems with our platform or with the public cloud and internet infrastructure on which it relies.
- We expect fluctuations in our financial results, making it difficult to project future results, and if we fail to meet the expectations of securities analysts or investors with respect to our results of operations, our stock price could decline.
- Failure to effectively develop and expand our sales and marketing capabilities could harm our ability to increase our customer base and achieve broader market acceptance of our products and platform.
- Sales efforts to large customers involve risks that may not be present or that are present to a lesser extent with respect to sales to smaller organizations.
- The ongoing COVID-19 pandemic could have an adverse impact on our business, operations, and the markets and communities in which we, our partners, and customers operate.

PART I

ITEM 1. BUSINESS

We believe in a data connected world where organizations have seamless access to explore, share, and unlock the value of data. To realize this vision, we deliver the Data Cloud, a network where Snowflake customers, partners, data providers, and data consumers can break down data silos and derive value from rapidly growing data sets in secure, governed, and compliant ways.

Our platform is the innovative technology that powers the Data Cloud, enabling customers to consolidate data into a single source of truth to drive meaningful business insights, build data-driven applications, and share data. We provide our platform through a customer-centric, consumption-based business model, only charging customers for the resources they use.

Snowflake solves the decades-old problem of data silos and data governance. Leveraging the elasticity and performance of the public cloud, our platform enables customers to unify and query data to support a wide variety of use cases. It also provides frictionless and governed data access so users can securely share data inside and outside of their organizations, generally without copying or moving the underlying data. As a result, customers can blend existing data with new data for broader context, augment data science efforts, and create new monetization streams. Delivered as a service, our platform requires near-zero maintenance, enabling customers to focus on deriving value from their data rather than managing infrastructure.

Our cloud-native architecture consists of three independently scalable but logically integrated layers across storage, compute, and cloud services. The storage layer ingests massive amounts and varieties of structured, semi-structured, and unstructured data to create a unified data record. The compute layer provides dedicated resources to enable users to simultaneously access common data sets for many use cases with minimal latency. The cloud services layer intelligently optimizes each use case's performance requirements with no administration. This architecture is built on three major public clouds across 31 regional deployments around the world. These deployments are generally interconnected to deliver the Data Cloud, enabling a consistent, global user experience.

Our platform supports a wide range of workloads that enable our customers' most important business objectives, including data warehousing, data lakes, data engineering, data science, data application development, and data sharing. From January 1, 2022 to January 31, 2022, we processed an average of over 1,496 million daily queries across all of our customer accounts, up from an average of over 777 million daily queries during the corresponding month of the prior fiscal year. We also recently launched our Powered by Snowflake program to help companies build, operate, and grow applications in the Data Cloud by supporting developers across all stages of the application journey. Members of the program have access to go-to-market, customer support, and engineering expertise.

We have an industry-vertical focus, which allows us to go to market with tailored business solutions. For example, we have launched the Financial Services Data Cloud, the Media Data Cloud, the Healthcare and Life Sciences Data Cloud, and the Retail Data Cloud. Each of these Data Clouds brings together Snowflake's platform capabilities with industry-specific partner solutions and datasets to drive business growth and deliver improved experiences and insights.

Our business benefits from powerful network effects. The Data Cloud will continue to grow as organizations move their siloed data from cloud-based repositories and on-premises data centers to the Data Cloud. The more customers adopt our platform, the more data can be exchanged with other Snowflake customers, partners, data providers, and data consumers, enhancing the value of our platform for all users. We believe this network effect will help us drive our vision of the Data Cloud.

Our platform is used globally by organizations of all sizes across a broad range of industries. As of January 31, 2022, we had 5,944 total customers, increasing from 4,139 customers as of January 31, 2021. As of January 31, 2022, our customers included 241 of the Fortune 500, based on the 2021 Fortune 500 list, and 488 of the Global 2000, based on the 2021 Forbes Global 2000 list, and those customers contributed approximately 26% and 40% of our revenue, respectively, for the fiscal year ended January 31, 2022. Each of our Fortune 500 and Global 2000 customer counts is subject to adjustments for annual updates to the Fortune 500 list by Fortune and to the Global 2000 list by Forbes, respectively, as well as acquisitions, consolidations, spin-offs, and other market activity with respect to such customers. As our customers experience the benefits of our platform, they typically expand their usage significantly, as evidenced by our net revenue retention rate, which was 178% as of January 31, 2022. The number of customers that contributed more than $1 million in trailing 12-month product revenue increased from 77 to 184 as of January 31, 2021 and 2022, respectively.

We have achieved significant growth in recent periods. For the fiscal years ended January 31, 2022, 2021, and 2020, our revenue was $1.2 billion, $592.0 million, and $264.7 million, respectively, representing year-over-year growth of 106% and 124%, respectively. Our net loss was $679.9 million, $539.1 million, and $348.5 million for the fiscal years ended January 31, 2022, 2021, and 2020, respectively.

The Rise of the Data Cloud

Data exists everywhere, but is often held hostage in silos by machines, applications, networks, and clouds. In order to access the value of this data, organizations are undergoing massive digital transformation initiatives, and data is driving operations for many modern enterprises. In an effort to mobilize data, companies have invested billions of dollars in disparate on-premises systems, infrastructure clouds, and application clouds. Yet, there are a myriad of challenges associated with legacy data solutions and the data silo problem persists.

We believe the Data Cloud can enable a world without data silos, allowing organizations to effortlessly discover, access, derive insights from, and share data from a variety of sources. Customers can share and provide access to each other’s data, augment data science and machine learning algorithms with more data sets, connect global supply chains through data hubs, and create new monetization channels by connecting data providers and consumers. As the Data Cloud grows through broad adoption and increasing usage, there are enhanced benefits from greater data availability. Moving forward, we are continuing to foster these benefits through industry-specific Data Clouds and the Powered by Snowflake program.

Our Solution

Our platform is built on a cloud-native architecture that leverages the massive scalability and performance of the public cloud. Our platform allows customers to consolidate data into a single source of truth to drive meaningful business insights, power applications, and share data across regions and public clouds. Key elements of our platform include:

- ***Diverse data types.*** Our platform integrates and optimizes structured, semi-structured, and unstructured data, while maintaining performance and flexibility.
- ***Massive scalability of data volumes.*** Our platform leverages the scalability and performance of the public cloud to support growing data sets without sacrificing performance.
- ***Multiple use cases and users simultaneously.*** Our platform makes compute resources dynamically available to address the demand of as many users and use cases as needed. Because the storage layer is independent of compute, the data is centralized and simultaneously accessible by many users without compromising performance or data integrity.
- ***Optimized price-performance.*** Our platform uses advanced optimizations to efficiently access only the data required to deliver the desired results. It delivers speed without the need for tuning or the expense of manually organizing data prior to use. Organizations can adjust their consumption to precisely match their needs, always optimizing for price-performance.

- ***Easy to use.*** Our platform can be up and running in seconds and is priced based on a consumption-based business model, reducing hidden costs and ensuring customers pay only for what they use. Snowpark, our developer framework, allows developers to interact with Snowflake through various popular programming languages. This, combined with our familiar SQL-based programming model and query language, provides choice for organizations and saves time and costs to learn new skills or hire specialized analysts or data scientists.

- ***Delivered as a service with no overhead.*** Our platform is delivered as a service, eliminating the cost, time, and resources associated with managing underlying infrastructure. We deliver automated platform updates regularly with minimal planned downtime, eliminating expensive and time-consuming version and patch management. This gives customers the ability to consume more data at a lower total cost of ownership compared with other solutions.

- ***Multi-cloud and multi-region.*** Our platform is available on three major public clouds across 31 regional deployments around the world. These deployments are generally interconnected to provide a global and consistent user experience.

- ***Seamless and secure data sharing.*** Our platform enables governed and secure sharing of live data within an organization and externally across customers and partners, generally without copying or moving the underlying data. When sharing data across regions and public clouds, our platform allows customers to easily replicate data and maintain a single source of truth.

Key Benefits to our Customers

Our platform enables customers to:

- ***Transform into data-driven businesses.*** Our platform eliminates data silos, empowers secure and governed access to data, and removes data management and infrastructure complexities. This enables organizations to drive greater insights, improve products and services, and pursue new business opportunities.

- ***Consolidate data into a single, analytics-ready source of truth.*** Our platform simplifies our customers' data infrastructure by centralizing data in an analytics-ready format. As a result, organizations are able to deliver secure, fast, and accurate decision making. It also simplifies governance and minimizes the errors, complexity, and costs associated with managing data silos.

- ***Increase agility and augment insights through seamless data sharing.*** Our platform allows customers to seamlessly share and consume live data across their organizations, and with their partners, customers, and suppliers, without moving the underlying data. Customers can also leverage the Snowflake Data Marketplace, which provides access to hundreds of live, ready-to-query third-party data sets across a wide range of categories. Through data sharing within and outside of their ecosystems, our customers are able to blend their existing data with broader context to gain deeper insights and enhance their partnerships.

- ***Create new monetization streams and data-driven applications.*** Our platform allows customers to unlock previously untapped monetization streams and create new data-driven applications. This enables organizations to better reach, engage, and retain their end customers.

- ***Benefit from a global multi-cloud strategy.*** Our platform delivers a consistent product experience across connected regions and public clouds. With a global multi-cloud strategy, organizations can optimize for the best features and functionality each public cloud provides, without becoming overly reliant on a single public cloud provider. Our customers can optimize their cloud costs, seamlessly migrate data among connected public clouds without having to alter existing security policies, and implement regional strategies, including to meet regulatory and data sovereignty requirements.

- ***Reduce time spent managing infrastructure.*** Because we deliver our platform as a service, our customers can focus on driving immediate value from their data and not on managing complex and expensive infrastructure.

- ***Enable greater data access through enhanced data governance.*** Security and governance, including the encryption of data in transit and at rest, were designed into our platform architecture. This provides customers with the confidence to share their data inside their organizations, as well as with their partners, customers, and suppliers, to unlock new insights.

Our Growth Strategies

We intend to invest in our business to advance the Data Cloud through the adoption of our platform. Our growth strategies include:

- ***Innovate and advance our platform.*** We have a history of technological innovation, releasing new features on a regular basis and making frequent updates to our platform. We intend to continue making significant investments in research and development and hiring top technical talent to enable new use cases, strengthen our technical lead in our platform's architecture, and increase our differentiation through enhanced data sharing capabilities. For example, in 2021 we launched Snowpark and introduced support for unstructured data which allows expanded use of our platform.

- ***Drive growth by acquiring new customers.*** We believe that nearly all organizations will eventually embrace a cloud strategy, and that the opportunity to continue growing our customer base, particularly with larger organizations and organizations with vast amounts of data, is substantial. To drive new customer growth, we intend to continue investing in sales and marketing, with a focus on replacing legacy solutions and big data offerings and providing industry-specific services.

- ***Drive increased usage within our existing customer base.*** As customers realize the benefits of our platform, they typically increase their platform consumption by processing, storing, and sharing more data. We plan to continue investing in sales and marketing, with a focus on driving more consumption on our platform to grow large customer relationships, which lead to scale and operating leverage in our business model.

- ***Expand our global footprint.*** As organizations around the world increase their public cloud adoption, we believe there is a significant opportunity to expand the use of our platform outside of North America. We continue to make investments in sales and marketing, research and development, customer support, and public cloud deployments across the EMEA, Asia-Pacific and Japan (APJ), and Latin America regions.

- ***Expand data content and data sharing across our global ecosystem.*** Our platform provides an innovative way for organizations to share, collaborate, and connect with data, including through the Data Marketplace. We plan to continue investing in adding new customers, partners, data providers, and data consumers to connect on our platform, and to drive market awareness of the Data Cloud.

- ***Grow and invest in our partner network.*** Our Snowflake Partner Network is comprised of system integrators, resellers, data providers, and other services partners who help accelerate the adoption of our platform, and technology partners, who help provide end-to-end solutions to our customers. We plan to continue investing in building out our partner program to drive more consumption on our platform, broaden our distribution footprint, acquire new customers, and drive greater awareness of our platform. For example, we launched our Powered by Snowflake program in 2021 to help customers and partners build, operate, and grow their applications built using Snowflake.

Our Platform

Our platform unifies data and supports a growing variety of workloads, including data warehousing, data lakes, data engineering, data science, data application development, and data sharing. Customers can leverage our platform for any one of these workloads, but when taken together, it provides an integrated, end-to-end solution that delivers greater insights, faster data transformations, and improved data sharing. Delivered as a service, our platform is deployed across multiple public clouds and regions, is easy to use, and requires near-zero maintenance.

Workloads

Organizations use our platform to power the following workloads:

- ***Data Warehouse.*** Our platform provides reporting and analytics to increase business intelligence. For Data Warehouse, our platform enables organizations to:
    - *Support multiple users and activities concurrently.* Enable multiple activities, such as repeatable analytics, rendering of dashboards, or ad hoc explorations, such as data science model training, with flexible compute capacity, no resource contention, and no provisioning of any infrastructure.

- *Generate comprehensive data insights.* Customers can run queries on structured, semi-structured, and unstructured data to capitalize on a more comprehensive view of their data to drive maximum insights.

- *Simplify data governance.* Gain immediate insight into data and usage patterns and set policies and configurations to maximize governance.

- ***Data Lake.*** Our platform can serve as a central data repository without trade-offs in performance, security, or data governance. It can also augment existing data lakes with seamless access to external data and open formats. For Data Lake, our platform enables organizations to:

  - *Build a modern scalable data lake in the cloud.* Consolidate data into one centralized place with the scalability, security, and analytical power of data warehousing in the cloud to enable real-time analytics on all data. Customers can rely on this centralized data repository to address a variety of use cases.

  - *Enact better governance and security to enable broader data access.* Simplify data governance and provide rich security and controls to ensure data is managed and accessed according to regulatory and corporate requirements.

- ***Data Engineering.*** Our platform enables data engineers, IT departments, data science teams, and business analytics teams to efficiently build and manage data pipelines using SQL or other programming languages to transform raw data into actionable data for business insights. For Data Engineering, our platform enables organizations to:

  - *Drive faster decision making.* Ingest data and transform it in real time to ensure access to up-to-date information to drive better business outcomes.

  - *Dynamically meet peak business demands*. Meet fluctuating business demands by instantly scaling resources up and down.

- ***Data Science.*** A majority of data science efforts involve transforming massive amounts of raw data at scale to enable advanced analytics, such as advanced statistical analysis and machine learning techniques. For Data Science, our platform enables organizations to:

  - *Accelerate transformations across massive data sets.* Store and transform data at scale with the massive scalability and performance of the public cloud.

  - *Integrate with leading data science tools and languages.* Manage resources for data transformation and use leading data science tools, with the support of Scala, R, Java, and Python, to build machine learning algorithms in a single cloud platform.

- ***Data Application Development.*** Our platform can power new applications as well as enable existing applications with capabilities for reporting and analytics. For Data Application Development, our platform enables organizations to:

  - *Develop analytical applications.* Build data-driven applications with our platform serving as the analytical engine to provide massive scalability and insights.

  - *Embed Snowflake into existing applications.* Feed data and analytics directly into business applications in the context of daily workstreams.

- ***Data Sharing.*** Our platform enables organizations to securely share, connect, collaborate, monetize, and acquire live data sets. For Data Sharing, our platform enables organizations to:

  - *Create a private data hub.* Build a private data hub for employees across all parts of the organization to access, collaborate, and analyze data.

  - *Acquire data sets to enrich analytics.* Leverage public data sets on our Data Marketplace to enrich insights, augment analysis, and inform machine learning algorithms.

  - *Monetize new data sets.* List data sets to our Data Marketplace and tap into new monetization streams.

- *Invite external parties to access governed data.* Invite customers, suppliers, and partners, to securely access their data to streamline operations and increase transparency.

- *Enable data clean rooms*. Our platform enables data clean rooms, allowing organizations to design their own collaborative data environment in a privacy-compliant manner.

- *Easy data replication.* Our platform allows for easy replication of data for multiple users across multiple public cloud providers and regions without compromising data integrity and governance, enabling our customers and their users to rely on a single source of truth.

Architecture

Our platform was built from the ground up to take advantage of the cloud, and is built on an innovative multi-cluster, shared data architecture. It consists of three independently scalable layers deployed and connected globally across public clouds and regions:

- ***Centralized storage.*** The storage layer is based on scalable cloud storage and can manage structured, semi-structured, and unstructured data. It can be grown independently of compute resources, allowing for maximum scalability and elasticity, and ensures a single, persistent copy of the data. The stored data is automatically partitioned, and metadata is extracted during loading to enable efficient processing.

- ***Multi-cluster compute.*** The compute layer is designed to capitalize on the instant elasticity and performance of the public cloud. Compute clusters can be spun up and down easily within seconds, enabling our platform to retrieve the optimal data required from the storage layer to answer queries and transform data with optimized price-performance. This functionality allows a multitude of users and use cases to operate on a single copy of the data.

- ***Cloud services.*** The cloud services layer acts as the brain of the platform ensuring the different components work in unison to deliver a consistent user-friendly customer experience. It performs a variety of tasks, including security operations, system monitoring, query optimization, and metadata and state tracking throughout the platform.

This architecture is built on three major public clouds across 31 regional deployments around the world. These deployments are generally interconnected to deliver the Data Cloud, enabling a global and consistent user experience.

Our Technology

Innovation is at the core of our culture. We have developed innovative technology across our platform, including managed service, storage, query capabilities, compute model, data sharing, global infrastructure, and integrated security.

- ***Managed Service***

  - *High availability.* Within a region, all components of our platform are distributed over multiple data centers to ensure high availability. Hardware and software problems are automatically detected and addressed by the system, with full transparency to our customers.

  - *Transactions.* Our platform supports full ACID compliant transactional integrity, ensuring that data remains consistent even when our platform is concurrently used by many users and use cases.

  - *Data availability and recovery.* Our platform provides customers the ability to replicate data across various deployments, create point-in-time consistent snapshots of data, and view or recover deleted or changed data over a configured period of time. This allows customers to avoid difficult trade-offs between high recovery times, data loss, or downtime.

- ***Storage***
  - *Columnar data.* Our platform stores data in a proprietary columnar representation, which optimizes the performance of analytical and reporting queries. It also provides high compression ratios, resulting in economic benefits for customers.

- *Micro-partitioning.* Our platform automatically partitions all data it stores without the need for user specification or configuration. It creates small files called "micro partitions" based on size, enabling optimizations in query processing to retrieve only the data relevant for user queries, simplifying user administration and enhancing performance.

- *Metadata.* When data is ingested, our platform automatically extracts and stores metadata to speed up query processing. It does so by collecting data distribution information for all columns in every micro-partition.

- *Semi-structured and unstructured data.* In addition to structured, relational data, our platform supports semi-structured data, including JSON, Avro, and Parquet, and unstructured data, including PDF documents, screenshots, recordings, and images. Data in these formats can be ingested and queried with performance comparable to a relational, structured representation.

- ***Query Capabilities.*** Our platform is engineered to query petabytes of data. It implements support for a large subset of the ANSI SQL standard for read operations and data modification operations. Our platform provides additional features, including:

  - *Time travel.* Our platform keeps track of all changes happening to a table, which enables customers to query previous versions based on their preferences. Customers can query as of a relative point in time or as of an absolute point in time. This has a broad array of use cases for customers, including error recovery, time-based analysis, and data quality checks.

  - *Cloning.* Our architecture enables us to offer zero-copy cloning, an operation by which entire tables, schemas, or databases can be duplicated—or cloned—without having to copy or duplicate the underlying data. Our platform leverages the separation between cloud services and storage to be able to track independent clones of objects sharing the same physical copy of the underlying data. This enables a variety of customer use cases such as making copies of production data for data scientists, creating custom snapshots in time, or testing data pipelines.

- ***Compute Model.*** Our platform offers a variety of capabilities to operate on data, from ingestion to transformation, as well as rich query and analysis. Our compute services are primarily presented to users in one of two models, either through explicit specification of compute clusters or through a number of serverless services.

  - *Compute Clusters.* Our platform exposes compute clusters as a core concept. Our customers are able to create as few or as many compute clusters as they want and specify compute capacity at tiered levels. These clusters can be configured to run only when needed, with cluster instantiation operations typically completed in seconds. Compute clusters can also be configured as a multi-cluster warehouse in which our platform can automatically add and remove additional instances of a given cluster to address variations in query demands. This gives us the ability to offer extremely high levels of concurrency with a simple configuration specification.

  - *Serverless services.* We offer a number of additional services that automatically provide the capacity our customers require. For example, our data ingestion service automatically ingests data from cloud storage and allocates compute capacity based on the amount of data ingested; our clustering service continuously rearranges the physical layout of data to ensure conformity with clustering key specifications, improving performance; our materialized views service propagates changes from underlying tables to views that have materialized subsets or summaries; our replication service moves data between regions or clouds; and our search optimization service analyzes changes in data, maintains information that speeds up lookup queries, and accelerates queries performing lookups of specific values.

- ***Data Sharing.*** In our platform, data sharing is defined through access control and not through data movement. As such, the data consumer sees no latency relative to updates from the data provider, and incurs no cost to move or transform data to make it usable.

- ***Global Infrastructure***

  - *Database replication.* Our platform enables customers to replicate data from one region or public cloud to another region or public cloud while maintaining transactional integrity.

- *Business continuity.* Our platform enables failing over and failing back a database and redirecting clients transparently across regions or public clouds. This provides an integrated and global disaster recovery capability.

- *Global listings for sharing.* Our platform enables a listing to be published globally to access consumers across regions or public clouds.

- ***Built-in Security.*** We built our platform with security as a core tenet. Our platform provides a number of capabilities for customers to confidently use our platform while preserving the security requirements of their organizations, including:

  - *Authentication.* Our platform supports rich authentication capabilities, including federated authentication with a variety of identity providers, as well as support for multi-factor authentication.

  - *Access control.* Our platform provides a fine-grained security model based on role-based access control. It provides granular privileges on system objects and actions.

  - *Data encryption.* Our platform encrypts all data, both in motion and at rest, and simplifies operations by providing automatic re-keying of data. It also supports customer-managed keys, where an additional layer of encryption is provided by keys controlled by customers, giving them the ability to control access to the data.

Sales and Marketing

We sell our platform primarily through our direct sales team, which consists of field sales and inside sales professionals segmented by customer industry, size, and region. Our direct sales team is primarily focused on new customer acquisitions and driving increased usage of our platform by existing customers. The breadth of our platform allows us to engage at every level of an organization, including data analysts and data engineers through our self-service model and senior executives through our direct sales team. The substantial majority of our global sales and marketing efforts are carried out by teams located in North America. Outside of North America, we have dedicated direct sales teams for the EMEA and APJ regions for organizations of all sizes.

Many organizations initially adopt our platform through a self-service trial on our website. We deploy a range of marketing strategies to drive traffic to our website and usage of our platform. Our marketing team combines the creation of inbound demand with direct marketing, business development, and efforts targeted at business and technology leaders.

Partnerships

Our partnership strategy is focused on delivering complete end-to-end solutions for our customers, driving general awareness of our platform, and broadening our distribution and reach to new customers. Our Snowflake Partner Network is a global program that manages our business relationships with a broad-based network of companies. Our partnerships consist of channel partners, system integrators, data providers, and other technology partners. Collectively, these partners help us source leads, execute transactions, and provide training and implementation of our platform. Our system integrator partners help make the adoption of and migration to our platform easier by providing implementations, value-added professional services, managed services, and resale services. Our technology partners provide strategic value to our customers by providing software tools, such as data loading, business intelligence, machine learning, data governance, and security, as well as data sets on our Data Marketplace, to augment the capabilities of our platform. We continue to invest in formal alliances with the leading consulting, data management, and implementation service providers to help our customers migrate their legacy database solutions to the cloud. Over time, we expect our partner network to drive more customers and consumption to our platform.

Research and Development

Our research and development organization is responsible for the design, development, testing, and delivery of new technologies, features, integrations, and improvements of our platform. It is also responsible for operating and scaling our platform, including the underlying public cloud infrastructure. Many of our research and development employees are currently working remotely. As our research and development employees return to an office, we expect them to be located primarily in or around Bellevue, Washington; Berlin, Germany; San Mateo, California; Toronto, Canada; and Warsaw, Poland.

Our research and development organization consists of teams specializing in software engineering, user experience, product management, data science, technical program management, and technical writing. As of January 31, 2022, we had 788 employees in our research and development organization. We intend to continue to invest in our research and development capabilities to expand our platform.

Our Competition

The markets we serve are highly competitive and rapidly evolving. With the introduction of new technologies and innovations, we expect the competitive environment to remain intense. Our competition includes the following:

- large, well-established, public cloud providers that generally compete in all of our markets, including Amazon Web Services (AWS), Microsoft Azure (Azure), and Google Cloud Platform (GCP);
- less-established public and private cloud companies with products that compete in some of our markets; and
- other established vendors of legacy database solutions or big data offerings.

We believe we compete favorably based on the following competitive factors:

- ability to provide and innovate around an architecture that is purpose-built for the cloud;
- ability to efficiently and seamlessly ingest diverse data types in one location at scale;
- ability to drive business value and ROI;
- ability to support multiple use cases in one platform, including various industry-specific use cases;
- ability to provide seamless and secure access of data to many users simultaneously;
- ability to seamlessly and securely share and move data across public clouds or regions;
- ability to provide a consistent user experience across multiple public cloud providers;
- ability to provide pricing transparency and optimized price-performance benefits;
- ability to elastically scale up and scale down in high-intensity use cases;
- ease of deployment, implementation, and use;
- performance, scalability, and reliability;
- security and governance; and
- quality of service and customer satisfaction.

See the section titled “Risk Factors” for a more comprehensive description of risks related to competition.

Seasonality

Historically, we have received a higher volume of orders from new and existing customers in the fourth fiscal quarter of each year. As a result, we have historically seen higher collections and consequently higher non-GAAP free cash flow in the first and fourth fiscal quarters of each year, and our sequential growth in remaining performance obligations has historically been highest in the fourth fiscal quarter of each year. For more information, including a definition of non-GAAP free cash flow and a reconciliation of free cash flow to the most directly comparable financial measure calculated in accordance with GAAP, see the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Human Capital Resources

General

As of January 31, 2022, we had 3,992 employees operating across 23 countries. None of our employees are represented by a labor union with respect to his or her employment. In certain countries in which we operate, such as France, we are subject to, and comply with, local labor law requirements, which include works councils and industry-wide collective bargaining agreements. We have not experienced any work stoppages, and we consider our relations with our employees to be good.

Location

We are a Delaware corporation with a globally distributed workforce. We recruit and hire employees in jurisdictions around the world based on a range of factors, including the available talent pool, the type of work being performed, the relative cost of labor, regulatory requirements and costs, and other considerations. Since April 2020, the vast majority of our workforce has been working remotely. Although we have recently opened most of our offices for voluntary use and we expect many of our employees to return to physical offices during the fiscal year ending January 31, 2023, the nature and extent of that return is uncertain.

Culture and Engagement

We consider our culture and employees to be important to our success. Our culture is driven by our core company values:

- **Put Customers First**: We only succeed when our customers succeed, so we focus on what matters most to them.
- **Integrity Always**: We are open, honest, and respectful.
- **Think Big**: We set big goals that will make a positive impact and a lasting difference.
- **Be Excellent**: We hold ourselves to the highest standards to achieve quality and excellence in everything we do.
- **Make Each Other the Best**: We bring ideas and people together through respect and collaboration.
- **Get it Done**: We follow through on our commitments and deliver results.
- **Own It**: We hold ourselves accountable at all times.
- **Embrace Each Other's Differences**: We are mindful that everyone has different experiences, and we use our differences to strengthen who we are.

We have invested substantial time and resources in building our team, and we measure employee performance against our company values. We are dependent on our management, highly-skilled software engineers, and sales personnel, and it is crucial that we continue to attract and retain valuable employees. To facilitate attraction and retention, we strive to provide opportunities for our employees to grow and develop in their careers, supported by strong compensation and benefits programs, including equity-based compensation that is designed to align our employees' interests with those of our stockholders.

Intellectual Property

Intellectual property rights are important to the success of our business. We rely on a combination of patent, copyright, trademark, and trade secret laws in the United States and other jurisdictions, as well as license agreements, confidentiality procedures, non-disclosure agreements with third parties, and other contractual protections, to protect our intellectual property rights, including our proprietary technology, software, know-how, and brand. We use open source software in our platform.

As of January 31, 2022, we held 261 issued U.S. patents and had 250 U.S. patent applications pending. We also held 85 issued patents in foreign jurisdictions. Our issued patents are scheduled to expire between January 2024 and July 2041. As of January 31, 2022, we held 22 registered trademarks in the United States, and also held 174 registered or protected trademarks in foreign jurisdictions. We continually review our development efforts to assess the existence and patentability of new intellectual property.

Although we rely on intellectual property rights, including patents, copyrights, trademarks, and trade secrets, as well as contractual protections to establish and protect our proprietary rights, we believe that factors such as the technological and creative skills of our personnel, creation of new services, features and functionality, and frequent enhancements to our platform are more essential to establishing and maintaining our technology leadership position.

We control access to and use of our proprietary technology and other confidential information through the use of internal and external controls, including contractual protections with employees, contractors, customers, and partners. We require our employees, consultants, and other third parties to enter into confidentiality and proprietary rights agreements, and we control and monitor access to our software, documentation, proprietary technology, and other confidential information. Our policy is to require all employees and independent contractors to sign agreements assigning to us any inventions, trade secrets, works of authorship, developments, processes, and other intellectual property generated by them on our behalf and under which they agree to protect our confidential information. In addition, we generally enter into confidentiality agreements with our customers and partners. See the section titled "Risk Factors" for a more comprehensive description of risks related to our intellectual property.

Available Information

Our website address is www.snowflake.com. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this Annual Report on Form 10-K. We file electronically with the SEC our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. We make available on our website at www.snowflake.com, free of charge, copies of these reports and other information as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

ITEM 1A. RISK FACTORS

Our operations and financial results are subject to various risks and uncertainties, including those described below. You should consider and read carefully all of the risks and uncertainties described below, together with all of the other information contained in this Annual Report on Form 10-K, including the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes, before making an investment decision. The risks described below are not the only ones we face. The occurrence of any of the following risks or additional risks and uncertainties not presently known to us or that we currently believe to be immaterial could materially and adversely affect our business, financial condition, or results of operations. In such case, the trading price of our common stock could decline. You should not interpret our disclosure of any of the following risks to imply that such risks have not already materialized.

Risks Related to Our Business and Operations

We have experienced rapid revenue growth, which may not be indicative of our future performance, and we have a limited operating history, both of which make it difficult to forecast our future results of operations.

Our revenue was $1.2 billion, $592.0 million, and $264.7 million for the fiscal years ended January 31, 2022, 2021, and 2020, respectively. You should not rely on the revenue growth of any prior quarterly or annual period as an indication of our future performance. As a result of our historical rapid growth and limited operating history, our ability to accurately forecast our future results of operations, including revenue, remaining performance obligations (RPO), and the percentage of RPO we expect to be recognized as revenue in future periods, is limited and subject to a number of uncertainties, including our ability to plan for and model future growth and platform consumption. Our historical revenue growth should not be considered indicative of our future performance.

Further, in future periods, our revenue growth could slow or our revenue could decline for a number of reasons, including slowing demand for our platform, increased competition, changes to technology (including changes in software or underlying cloud infrastructure), a decrease in the growth of our overall market, or our failure, for any reason, to continue to take advantage of growth opportunities. As a result of our rapid revenue growth in prior periods, we expect our revenue growth rate to decline in future periods, and a decline in our revenue growth rate could adversely affect investors' perceptions of our business, and negatively impact the trading price of our common stock. We have also encountered, and will continue to encounter, risks and uncertainties frequently experienced by growing companies in rapidly changing industries, such as the risks and uncertainties described below. If our assumptions regarding these risks and uncertainties and our future revenue growth are incorrect or change, or if we do not address these risks successfully, our operating and financial results could differ materially from our expectations, and our business could suffer.

We may not have visibility into our future financial position and results of operations.

Customers consume our platform by using compute, storage, and data transfer resources. Unlike a subscription-based business model, in which revenue is recognized ratably over the term of the subscription, we generally recognize revenue on consumption. Because our customers have flexibility in the timing of their consumption, we do not have the visibility into the timing of revenue recognition that a typical subscription-based software company has. There is a risk that customers will consume our platform more slowly than we expect, and our actual results may differ from our forecasts. Further, investors and securities analysts may not understand how our consumption-based business model differs from a subscription-based business model, and our business model may be compared to subscription-based business models. If our results of operations fall below the expectations of investors and securities analysts who follow our stock, the price of our common stock could decline substantially, and we could face costly lawsuits, including securities class actions.

We have a history of operating losses and may not achieve or sustain profitability in the future.

We have experienced net losses in each period since inception. We generated net losses of $679.9 million, $539.1 million, and $348.5 million for the fiscal years ended January 31, 2022, 2021, and 2020, respectively. As of January 31, 2022 and 2021, we had an accumulated deficit of $1.9 billion and $1.2 billion, respectively. We expect our costs and expenses to increase in future periods. In particular, we intend to continue to invest significant resources to further develop our platform and expand our sales, marketing, and professional services teams. In addition, our platform currently operates on public cloud infrastructure provided by Amazon Web Services (AWS), Microsoft Azure (Azure), and Google Cloud Platform (GCP), and our costs and gross margins are significantly influenced by the prices we are able to negotiate with these public cloud providers, which in certain cases are also our competitors. If we fail to meet any minimum commitments under these third-party cloud infrastructure agreements, we may be required to pay the difference, and our results of operations could be negatively impacted. We will also incur increased general and administrative expenses associated with our growth, including costs related to internal systems and operating as a public company. Our efforts to grow our business may be costlier than we expect, or our revenue growth rate may be slower than we expect, and we may not be able to increase our revenue enough to offset the increase in operating expenses resulting from these investments. If we are unable to achieve and sustain profitability, or if we are unable to achieve the revenue growth that we expect from these investments, the value of our business and common stock may significantly decrease.

The markets in which we operate are highly competitive, and if we do not compete effectively, our business, financial condition, and results of operations could be harmed.

The markets in which we operate are rapidly evolving and highly competitive. As these markets continue to mature and new technologies and competitors enter such markets, we expect competition to intensify. Our current competitors include:

- large, well-established, public cloud providers that generally compete in all of our markets, including AWS, Azure, and GCP;
- less-established public and private cloud companies with products that compete in some of our markets;
- other established vendors of legacy database solutions or big data offerings; and
- new or emerging entrants seeking to develop competing technologies.

We compete based on various factors, including price, performance, breadth of use cases, multi-cloud availability, brand recognition and reputation, customer support, and differentiated capabilities, including ease of implementation and data migration, ease of administration and use, scalability and reliability, data governance, security, and compatibility with existing standards, programming languages, and third-party products. Many of our competitors have substantially greater brand recognition, customer relationships, and financial, technical, and other resources than we do, and may be able to respond more effectively than us to new or changing opportunities, technologies, standards, customer requirements, and buying practices.

We currently only offer our platform on the public clouds provided by AWS, Azure, and GCP, which are also some of our primary competitors. Currently, a substantial majority of our business is run on the AWS public cloud. There is risk that one or more of these public cloud providers could use its respective control of its public clouds to embed innovations or privileged interoperating capabilities in competing products, bundle competing products, provide us unfavorable pricing, leverage its public cloud customer relationships to exclude us from opportunities, and treat us and our customers differently with respect to terms and conditions or regulatory requirements than it would treat its similarly situated customers. Further, they have the resources to acquire, invest in, or partner with existing and emerging providers of competing technology and thereby accelerate adoption of those competing technologies. All of the foregoing could make it difficult or impossible for us to provide products and services that compete favorably with those of the public cloud providers.

For all of these reasons, competition may negatively impact our ability to maintain and grow consumption of our platform or put downward pressure on our prices and gross margins, any of which could materially harm our reputation, business, results of operations, and financial condition.

If we fail to innovate in response to changing customer needs and new technologies and other market requirements, our business, financial condition, and results of operations could be harmed.

We compete in markets that evolve rapidly. We believe that the pace of innovation will continue to accelerate as customers increasingly base their purchases of cloud data platforms on a broad range of factors, including performance and scale, markets addressed, types of data processed, ease of data ingestion, user experience, and data governance and regulatory compliance. We introduced data warehousing on our platform in 2014 as our core use case, and our customers subsequently began using our platform for additional use cases, including data lake, data engineering, data science, data application development, and data sharing. Our future success depends on our ability to continue to innovate and increase customer adoption of our platform and the Data Cloud. Further, the value of our platform to customers is increased to the extent they are able to use it to process and access all types of data. We need to continue to invest in technologies, services, and partnerships that increase the types of data available and processed on our platform and the ease with which customers can ingest data into our platform. We must also continue to enhance our data sharing and data marketplace capabilities so customers can share their data with internal business units, customers, and other third parties, and acquire additional third-party data to combine with their own data in order to gain additional business insights. In addition, our platform requires third-party public cloud infrastructure to operate. Currently, we use public cloud offerings provided by AWS, Azure, and GCP. We will need to continue to innovate to optimize our offerings for these and other public clouds that our customers require, particularly as we expand internationally. Further, the markets in which we compete are subject to evolving industry standards and regulations, resulting in increasing data governance and compliance requirements for us and our customers and partners. To the extent we expand further into the public sector and highly regulated industries, our platform may need to address additional requirements specific to those industries.

If we are unable to enhance our platform to keep pace with these rapidly evolving customer requirements, or if new technologies emerge that are able to deliver competitive products at lower prices, more efficiently, more conveniently, or more securely than our platform, our business, financial condition, and results of operations could be adversely affected.

If we or our third-party service providers experience an actual or perceived security breach or unauthorized parties otherwise obtain access to our customers' data, our data, or our platform, our platform may be perceived as not being secure, our reputation may be harmed, demand for our platform may be reduced, and we may incur significant liabilities.

Our platform processes, stores, and transmits our customers' and partners' proprietary, confidential, and sensitive data, such as personal information, protected health information, and financial data. Our platform is built to be available on the infrastructure of third-party public cloud providers, such as AWS, Azure, and GCP. We also use third-party service providers and sub-processors to help us deliver services to our customers and their end-users, as well as for our internal business operations. These vendors may process, store, or transmit data of our employees, partners, customers, and customers' end-users. Even though we may not control the security measures of these vendors, we may be responsible for any breach of such measures.

Threats to information systems and data come from a variety of sources, including traditional computer "hackers," threat actors, personnel (such as through theft or misuse), sophisticated nation-states, and nation-state-supported actors. We are subject to a variety of evolving threats, including cyber-attacks, denial-of-service attacks, ransomware attacks, business email compromises, computer malware, viruses, social engineering attacks (including phishing), personnel misconduct or error, supply-chain attacks, software bugs, and software or hardware failures, all of which are prevalent in our industry and our customers' and partners' industries. Furthermore, future business expansions or acquisitions could expose us to additional cybersecurity risks and vulnerabilities. The techniques used to sabotage or to obtain unauthorized access to our platform, systems, networks, or physical facilities in which data is stored or processed, or through which data is transmitted change frequently, and are becoming increasingly difficult to detect. In particular, ransomware attacks are becoming increasingly severe and can lead to significant interruptions in our operations, loss of data and income, reputational harm, diversion of funds, and increased insurance costs.

While we continue to implement security measures designed to protect against and remediate security incidents, there can be no assurances that these measures will be effective. We have previously been, and may in the future become, the target of threat actors seeking unauthorized access to our or our customers' or partners' systems or data or to disrupt our operations or ability to provide our services. Threat actors may also exploit vulnerabilities in, or obtain unauthorized access to, platforms, systems, networks, or physical facilities utilized by our third-party service providers. Any security breach of our platform, our operational systems, our software (including open source software), our physical facilities, or the systems of our third-party service providers or sub-processors, or the perception that one has occurred, could result in litigation, indemnity obligations, regulatory enforcement actions, investigations, fines, penalties, mitigation and remediation costs, disputes, reputational harm, diversion of management's attention, and other liabilities and damage to our business.

We have contractual and other legal obligations to notify relevant stakeholders of security breaches. Such mandatory disclosures are costly, could lead to negative publicity, may cause our customers or partners to lose confidence in the effectiveness of our security measures, divert management's attention, lead to governmental investigations, and require us to expend significant capital and other resources to respond to or alleviate problems caused by the actual or perceived security breach. Any security breach or effort to mitigate security vulnerabilities could result in unexpected interruptions, delays, cessation of service, and other harm to our business and our competitive position.

A security breach may cause us to breach, or lead to claims that we have breached, customer contracts. As a result, we could be subject to legal action (including the imposition of fines or penalties) and our customers could end their relationships with us. Furthermore, there can be no assurance that any limitations of liability in our contracts would be enforceable or adequate or would otherwise protect us from liabilities or damages.

Litigation resulting from security breaches may adversely affect our business. Unauthorized access to our platform, systems, networks, or physical facilities could result in litigation with our customers, our customers' end-users, or other relevant stakeholders. These proceedings could force us to spend money in defense or settlement, divert management's time and attention, increase our costs of doing business, or adversely affect our reputation. We could be required to fundamentally change our business activities and practices or modify our platform capabilities in response to such litigation, which could have an adverse effect on our business.

Our insurance coverage may not be adequate for data security, indemnification obligations, or other liabilities. The successful assertion of one or more large claims against us that exceeds our available insurance coverage or results in changes to our insurance policies (including premium increases or the imposition of large deductible or co-insurance requirements) could have an adverse effect on our business. In addition, we cannot be sure that our existing insurance coverage and coverage for errors and omissions will continue to be available on acceptable terms or that our insurers will not deny coverage as to any future claim. Risks related to our systems and security breaches are likely to increase as we continue to expand our platform and geographic footprint, grow our customer and partner base, and process, store, and transmit increasingly large amounts of data.

In addition, many of our employees are generally working remotely due to the COVID-19 pandemic, which increases our cyber security risk, creates data accessibility concerns, and makes us more susceptible to security breaches or business disruptions. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations, or prospects.

We could suffer disruptions, outages, defects, and other performance and quality problems with our platform or with the public cloud and internet infrastructure on which it relies.

Our business depends on our platform to be available without disruption. We have experienced, and may in the future experience, disruptions, outages, defects, and other performance and quality problems with our platform. We have also experienced, and may in the future experience, disruptions, outages, defects, and other performance and quality problems with the public cloud and internet infrastructure on which our platform relies. These problems can be caused by a variety of factors, including introductions of new functionality, vulnerabilities, and defects in proprietary and open source software, human error or misconduct, natural disasters (such as tornadoes, earthquakes, or fires), capacity constraints, design limitations, denial of service attacks, or other security-related incidents.

Further, if our contractual and other business relationships with our public cloud providers are terminated, suspended, or suffer a material change to which we are unable to adapt, such as the elimination of services or features on which we depend, we could be unable to provide our platform and could experience significant delays and incur additional expense in transitioning customers to a different public cloud provider.

Any disruptions, outages, defects, and other performance and quality problems with our platform or with the public cloud and internet infrastructure on which it relies, or any material change in our contractual and other business relationships with our public cloud providers, could result in reduced use of our platform, increased expenses, including service credit obligations, and harm to our brand and reputation, any of which could have a material adverse effect on our business, financial condition, and results of operations.

We expect fluctuations in our financial results, making it difficult to project future results, and if we fail to meet the expectations of securities analysts or investors with respect to our results of operations, our stock price could decline.

Our results of operations have fluctuated in the past and are expected to fluctuate in the future due to a variety of factors, many of which are outside of our control. As a result, our past results may not be indicative of our future performance. In addition to the other risks described herein, factors that may affect our results of operations include the following:

- fluctuations in demand for or pricing of our platform;
- fluctuations in usage of our platform;
- our ability to attract new customers;
- our ability to retain existing customers;
- customer expansion rates;

- timing, amount, and cost of our investments to expand the capacity of our public cloud providers;
- seasonality;
- investments in new features and functionality;

- fluctuations in consumption resulting from the introduction of new features, technologies, or capabilities to our software, systems, or to underlying cloud infrastructure, including features or capabilities that may increase or decrease the consumption required to execute existing or future workloads, like better storage compression and cloud infrastructure processor improvements;
- the timing of purchases;
- the speed with which customers are able to migrate data onto our platform;
- fluctuations or delays in purchasing decisions in anticipation of new products or enhancements by us or our competitors;
- changes in customers' budgets and in the timing of their budget cycles and purchasing decisions;
- our ability to control costs, including our operating expenses;
- the amount and timing of operating expenses, particularly research and development and sales and marketing expenses, including commissions;
- the amount and timing of non-cash expenses, including stock-based compensation, goodwill impairments, and other non-cash charges;
- the amount and timing of costs associated with recruiting, training, and integrating new employees and retaining and motivating existing employees;
- the effects and timing of acquisitions and their integration;
- general economic conditions, both domestically and internationally, as well as economic conditions specifically affecting industries in which our customers and partners participate;
- health epidemics or pandemics, such as the COVID-19 pandemic;
- the impact, or timing of our adoption, of new accounting pronouncements;
- changes in regulatory or legal environments that may cause us to incur, among other things, expenses associated with compliance;
- the overall tax rate for our business, which may be affected by the mix of income we earn in the United States and in jurisdictions with different tax rates, the effects of stock-based compensation, and the effects of changes in our business;
- the impact of changes in tax laws or judicial or regulatory interpretations of tax laws, which are recorded in the period in which such laws are enacted or interpretations are issued and may significantly affect the effective tax rate of that period;
- rising inflation and our ability to control costs, including our operating expenses;
- fluctuations in currency exchange rates and changes in the proportion of our revenue and expenses denominated in foreign currencies;
- fluctuations or impairments in the market values of our portfolio or strategic investments, or in interest rates;
- changes in the competitive dynamics of our market, including consolidation among competitors or customers; and
- significant security breaches of, technical difficulties with, or interruptions to, the delivery and use of our platform.

Any of these and other factors, or the cumulative effect of some of these factors, may cause our results of operations to vary significantly. If our results of operations fall below the expectations of investors and securities analysts who follow our stock, the price of our common stock could decline substantially, and we could face costly lawsuits, including securities class actions.

Failure to effectively develop and expand our sales and marketing capabilities could harm our ability to increase our customer base and achieve broader market acceptance of our products and platform.

We must expand our sales and marketing organization to increase our sales to new and existing customers. We plan to continue expanding our direct sales force, both domestically and internationally, particularly our direct enterprise sales organization focused on sales to the world's largest organizations. It may require significant time and resources to effectively onboard new sales and marketing personnel, and our continued remote working conditions could result in less effective, more operationally complicated, or lengthier onboarding processes. We also plan to continue to dedicate significant resources to sales and marketing programs that are industry-specific and focused on large organizations. Once a new customer begins using our platform, our sales team will need to continue to focus on expanding consumption with that customer. All of these efforts will require us to invest significant financial and other resources, including in industries and sales channels in which we have limited experience to date. Our business and results of operations will be harmed if our sales and marketing efforts generate increases in revenue that are smaller than anticipated. We may not achieve anticipated revenue growth from expanding our sales force if we are unable to hire, develop, integrate, and retain talented and effective sales personnel, if our new and existing sales personnel are unable to achieve desired productivity levels in a reasonable period of time, or if our sales and marketing programs are not effective.

Sales efforts to large customers involve risks that may not be present or that are present to a lesser extent with respect to sales to smaller organizations.

Sales to large customers involve risks that may not be present or that are present to a lesser extent with sales to smaller organizations, such as longer sales cycles, more complex customer requirements, including our ability to partner with third-parties that advise such customers or help them integrate their IT solutions, substantial upfront sales costs, and less predictability in completing some of our sales. For example, large customers may require considerable time to evaluate and test our platform prior to making a purchase decision and placing an order. In addition, large customers may be switching from legacy on-premises solutions when purchasing our products, and may rely on third-parties with whom we do not have relationships when making purchasing decisions. A number of factors also influence the length and variability of our sales cycle, including the need to educate potential customers about the uses and benefits of our platform, the discretionary nature of purchasing and budget cycles, and the competitive nature of evaluation and purchasing approval processes. As a result, the length of our sales cycle, from identification of the opportunity to deal closure, may vary significantly from customer to customer, with sales to large enterprises typically taking longer to complete. Moreover, large customers often begin to deploy our products on a limited basis but nevertheless demand implementation services and negotiate pricing discounts, which increase our upfront investment in the sales effort with no guarantee that sales to these customers will justify our substantial upfront investment. If we fail to effectively manage these risks associated with sales cycles and sales to large customers, our business, financial condition, and results of operations may be affected.

The ongoing COVID-19 pandemic could have an adverse impact on our business, operations, and the markets and communities in which we, our partners, and customers operate.

The potential long-term impact and duration of the COVID-19 pandemic (including any new variants) on the global economy and our business continue to be difficult to assess or predict. Potential impacts include:

- Our prospective and existing customers may experience, or may continue to experience, slowdowns in their businesses, which in turn may result in reduced demand for our platform, lengthening of sales cycles, loss of customers, and difficulties in collections.

- Our vendors and suppliers may experience, or may continue to experience, disruptions in their supply chains, which may result in service interruptions or additional operating expenses, and may increase the price at which our vendors and suppliers are willing to sell their products to us.

- Many of our employees are working, and may continue to work, remotely, which may result in decreased employee productivity, collaboration, and morale, with increased unwanted employee attrition.

- We continue to incur fixed costs, particularly for real estate, and are deriving reduced or no benefit from those costs.

- We may continue to experience disruptions to our growth planning, such as for facilities and international expansion.

- We are incurring costs in returning to work from our facilities around the world, including changes to the workplace, such as space planning, food service, and amenities, as well as costs associated with complying with new or evolving regulatory requirements, which may vary significantly depending on the jurisdiction.
- We are subject to an uncertain regulatory environment, and are required to comply with conflicting federal, state, and local laws regarding COVID-19, which may pose significant disruption to our business operations, require significant management attention to respond to and enforce, and result in an increased risk of non-compliance and claims.
- Our operating lease right-of-use assets may be impaired due to potential loss of sublease income.
- We may be subject to legal liability for safe workplace claims.
- Our critical vendors or partners could go out of business.
- Many of our in-person marketing events, including customer user conferences, have been canceled and we may continue to experience prolonged delays in our ability to reschedule or conduct in-person marketing events and other sales and marketing activities.
- Our marketing, sales, professional services, and support organizations are accustomed to extensive face-to-face customer and partner interactions, and conducting business virtually poses new challenges.

While some states and countries have begun to reopen, the status of the global recovery remains uncertain and unpredictable. Business activity may not recover as quickly as anticipated, and widespread recovery will be impacted by future developments, including future waves of outbreak or new variant strains of the virus, government and private sector requirements, and the emergence and effectiveness of medical and other measures to address COVID-19. Any of the foregoing could adversely affect our business, financial condition, and results of operations.

Our growth depends on the development, expansion, and success of our partner relationships.

As part of our vision for the Data Cloud, we will need to grow and maintain a network of data providers, data consumers, and data application developers. The relationships we have with these partners, and that our partners have with our customers, provide our customers with enhanced value from our platform and the Data Cloud. Our future growth will be increasingly dependent on the success of these relationships, and if we are unsuccessful in growing and maintaining these relationships or the types and quality of data supported by or available for consumption on our platform, our business, financial condition, and results of operations could be adversely affected.

Additionally, a small but increasing portion of our revenue is generated as a result of our relationships with global system integrators, managed service providers, and resellers. Increasingly, we and our customers rely on these partners to provide professional services, including customer implementations and migrations from legacy solutions, and there may not be enough qualified partners available, or we may not be able to develop or maintain relationships with enough partners, to meet customer demand. While we provide our partners with training and other enablement programs, these programs may not be effective or utilized consistently, and our return on these investments may be lower than expected. In addition, new partners may require extensive training or significant time and resources to achieve productivity. If we fail to effectively manage and grow our network of these partners, or properly monitor the quality and efficacy of their interactions with our customers, our ability to attract and retain new customers and expand customer consumption of our platform may be impacted, and our operating results and growth rate may be harmed.

If we are unable to successfully manage the growth of our professional services business and improve our profit margin from these services, our operating results will be harmed.

Our professional services business, which performs implementation services for our customers, has grown as our product revenue has grown. We believe our future success depends in part on investment in professional services to facilitate customer migration from legacy solutions and adoption of our platform, especially with large enterprises. As a result, our sales efforts have and will continue to be focused on helping our customers more quickly realize the value of our platform and the Data Cloud rather than on the profitability of our professional services business. In the future, we intend to price our professional services based on the anticipated cost of those services and, as a result, expect to improve the gross profit percentage of our professional services business. If we are unable to manage the growth of our professional services business and improve our profit margin from these services, our operating results, including our profit margins, will be harmed.

If we lose key members of our management team or are unable to attract and retain the executives and employees we need to support our operations and growth, our business and future growth prospects may be harmed.

Our success depends in part on the continued services of Frank Slootman, our Chairman and Chief Executive Officer, Michael P. Scarpelli, our Chief Financial Officer, and our other executive officers, as well as our other key employees in the areas of research and development and sales and marketing.

From time to time, there may be changes in our executive management team or other key employees resulting from the hiring or departure of these personnel. Our executive officers and other key employees are employed on an at-will basis, which means that these personnel could terminate their employment with us at any time. The loss of one or more of our executive officers, or the failure by our executive team to effectively work with our employees and lead our company, including as a result of remote working conditions, could harm our business.

In addition, to execute our growth plan, we must attract and retain highly qualified personnel. Competition for these personnel is intense, especially for engineers experienced in designing and developing cloud-based data platform products, experienced sales professionals, and expert customer support personnel. We also are dependent on the continued service of our existing software engineers because of the sophistication of our platform. Additionally, in 2021 there was a dramatic increase in workers leaving their positions throughout the technology industry that is being referred to as the “great resignation,” and the market to hire, retain, and replace talent has become even more competitive.

In order to continue to hire and retain highly qualified personnel, we will need to continue to hire in new locations around the world as well as consider flexible work options, which may add to the complexity and costs of our business operations. From time to time, we have experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with appropriate qualifications. Many of the companies with which we compete for experienced personnel have greater resources than we have, and the acceptance by these companies of remote or hybrid work environments may increase the competition for talent. In addition, prospective and existing employees often consider the value of the equity awards they receive in connection with their employment. If the value of our equity awards declines or continues to experience significant volatility, or if our existing employees receive significant proceeds from liquidating their previously vested equity awards, it may adversely affect our ability to recruit and retain key employees. Furthermore, current and prospective employees may believe that their equity award offers have limited upside, and our competitors may be able to offer more appealing compensation packages. Finally, if we hire employees from competitors or other companies, their former employers may attempt to assert that we or these employees have breached our or their legal obligations, resulting in a diversion of our time and resources.

We also believe our culture has been a key contributor to our success to date and that the critical nature of the platform that we provide promotes a sense of greater purpose and fulfillment in our employees. As our workforce becomes more distributed around the world, we may not be able to maintain important aspects of our culture. Any failure to preserve our culture could negatively affect our ability to retain and recruit personnel. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects would be harmed.

If the availability of our platform does not meet our service-level commitments to our customers, our current and future revenue may be negatively impacted.

We typically commit to our customers that our platform will maintain a minimum service-level of availability. If we are unable to meet these commitments, we may be obligated to provide customers with additional capacity, which could significantly affect our revenue. We rely on public cloud providers, such as AWS, Azure, and GCP, and any availability interruption in the public cloud could result in us not meeting our service-level commitments to our customers. In some cases, we may not have a contractual right with our public cloud providers that compensates us for any losses due to availability interruptions in the public cloud. Further, any failure to meet our service-level commitments could damage our reputation and adoption of our platform, and we could face loss of revenue from reduced future consumption of our platform. Any service-level failures could adversely affect our business, financial condition, and results of operations.

We agree to indemnify customers and other third parties, which exposes us to substantial potential liability.

Our contracts with customers, investors, and other third parties may include indemnification provisions under which we agree to defend and indemnify them against claims and losses arising from alleged infringement, misappropriation, or other violation of intellectual property rights, data protection violations, breaches of representations and warranties, damage to property or persons, or other liabilities arising from our products or such contracts. Although we attempt to limit our indemnity obligations and negotiate indemnification rights with vendors that would require them to contribute to our indemnity obligations, we may not be successful in doing so, and an event triggering our indemnity obligations could give rise to multiple claims involving multiple customers or other third parties. There is no assurance that our applicable insurance coverage, if any, would cover, in whole or in part, any such indemnity obligations. We may be liable for up to the full amount of the indemnified claims, which could result in substantial liability or material disruption to our business or could negatively impact our relationships with customers or other third parties, reduce demand for our products, and adversely affect our business, financial condition, and results of operations.

Acquisitions, strategic investments, partnerships, or alliances could be difficult to identify, pose integration challenges, divert the attention of management, disrupt our business, dilute stockholder value, and adversely affect our business, financial condition, and results of operations.

We have in the past and may in the future seek to acquire or invest in businesses, joint ventures, and platform technologies that we believe could complement or expand our platform, enhance our technology, or otherwise offer growth opportunities. Further, the proceeds we received from our initial public offering (IPO) in September 2020 increased the likelihood that we will devote resources to exploring larger and more complex acquisitions and investments than we have previously attempted. For example, in March 2022 we acquired Streamlit, Inc., a company that provides a framework built to simplify and accelerate the creation of data applications, representing a larger and more complex acquisition than our prior endeavors. Any such acquisitions or investments may divert the attention of management and cause us to incur various expenses in identifying, investigating, and pursuing suitable opportunities, whether or not the transactions are completed, and may result in unforeseen operating difficulties and expenditures. In particular, we may encounter difficulties assimilating or integrating the businesses, technologies, products, personnel, or operations of any acquired companies, particularly if the key personnel of an acquired company choose not to work for us, their software is not easily adapted to work with our platform, or we have difficulty retaining the customers of any acquired business due to changes in ownership, management, or otherwise. Any such transactions that we are able to complete may not result in the synergies or other benefits we expect to achieve, which could result in substantial impairment charges. These transactions could also result in dilutive issuances of equity securities or the incurrence of debt, which could adversely affect our results of operations.

As part of our corporate development program, we invest in companies to support our key business initiatives. These companies range from early, growth stage companies still defining their strategic direction to mature companies with established revenue streams. Our strategic investments are subject to risk of inability to achieve the desired strategic synergies and partial or total loss of investment capital. Furthermore, our competitors may invest in these companies alongside us, and may obtain information about our corporate development program or other business plans. The financial success of our investment is typically dependent on an exit in favorable market conditions. To the extent any of the companies in which we invest are not successful, which can include failure to achieve strategic business objectives as well as failure to achieve a favorable exit, we could recognize an impairment or loss on all or part of our investment.

Seasonality may cause fluctuations in our remaining performance obligations.

Historically, we have received a higher volume of orders from new and existing customers in the fourth fiscal quarter of each year. As a result, we have historically seen higher collections and consequently higher non-GAAP free cash flow in the first and fourth fiscal quarters of each year, and our sequential growth in remaining performance obligations has historically been highest in the fourth fiscal quarter of each year. We expect this seasonality to become more pronounced as we continue to target large enterprise customers based on their procurement, budgeting, and deployment cycles. For more information, including a definition of non-GAAP free cash flow and a reconciliation of free cash flow to the most directly comparable financial measure calculated in accordance with GAAP, see the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

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We do business with federal, state, local, and foreign governments and agencies, and heavily regulated organizations; as a result, we face risks related to the procurement process, budget, and product decisions driven by statutory and regulatory determinations, termination of contracts, and compliance with government contracting requirements.

We provide our platform to the U.S. government, state and local governments, foreign governments, and heavily regulated organizations directly and through our partners. We have made, and may continue to make, significant investments to support future sales opportunities in the government sector, including obtaining government certifications. However, government certification requirements may change, we may be unable to achieve or sustain one or more required government certifications, or we may be required to make unexpected changes to our business or products in order to sustain such certifications. As a result, our ability to sell into the government sector could be restricted until we satisfy the requirements of such certifications.

A substantial majority of our sales to date to government entities have been made indirectly through our distribution and reseller partners. Doing business with government entities, whether directly or indirectly, presents a variety of risks. The procurement process for governments and their agencies is highly competitive and time-consuming, and government decisions about their procurement needs may, in certain circumstances, be subject to political influence. To pursue these opportunities, we incur significant up-front time and expense, which subjects us to additional compliance risks and costs, without any assurance that we (or a third-party distributor or reseller) will win a contract. Beyond this, demand for our platform may be adversely impacted by public sector budgetary cycles, and funding availability that in any given fiscal cycle may be reduced or delayed, including in connection with an extended federal government shutdown. Further, if we or our partners are successful in receiving a competitive contract award, that award could be challenged by one or more competitive bidders in a legal action known as a “bid protest.” Bid protests may result in an increase in expenses related to obtaining or preserving contract awards or an unfavorable modification or loss of an award. In the event a bid protest is unsuccessful, the resulting delay in the startup and funding of the work under these contracts may cause our actual results to differ materially and adversely from those anticipated. As a result of these lengthy and uncertain sales cycles, it is difficult for us to predict the timing of entering into customer agreements with government entities or with our distribution and reseller partners in the government market.

In addition, public sector customers may have contractual, statutory, or regulatory rights to terminate current contracts with us or our third-party distributors or resellers for convenience or default. If a contract is terminated for convenience, we may only be able to collect fees for platform consumption prior to termination and settlement expenses. If a contract is terminated due to a default, we may be liable for excess costs incurred by the customer for procuring alternative products or services or be precluded from doing further business with government entities. Further, entities providing products or services to governments, whether directly or indirectly, are required to comply with a variety of complex laws, regulations, and contractual provisions relating to the formation, administration, and performance of government contracts. Such laws, regulations, and contractual provisions impose compliance obligations that are more burdensome than those typically encountered in commercial contracts, and they often give customers in the government market substantial rights and remedies, many of which are not typically found in commercial contracts. These rights and remedies may relate to intellectual property, price protection, the accuracy of information provided to the government, and termination rights. These rules may apply to us or third-party resellers or distributors whose practices we may not control. Such parties’ non-compliance could result in repercussions for us with respect to contractual and customer satisfaction issues.

In addition, federal, state, and local governments routinely investigate and audit contractors for compliance with applicable laws, regulations, and contractual provisions. If, as a result of an audit or investigation, it is determined that we have failed to comply with applicable requirements, we may be subject to civil and criminal penalties and administrative sanctions, including termination of contracts, forfeiture of profits or payments we have received, costs associated with the triggering of price reduction clauses, fines, and suspensions or debarment from future government business, and we may suffer reputational harm.

Further, we are increasingly doing business in heavily regulated industries, such as the financial services and health care industries. Existing and prospective customers, such as those in these industries, may be required to comply with more stringent regulations in connection with subscribing to and implementing our services or particular regulations regarding third-party vendors that may be interpreted differently by different customers. In addition, regulatory agencies may impose requirements toward third-party vendors generally, or our company in particular, that we may not be able to, or may not choose to, meet. In addition, customers in these heavily regulated areas often have a right to conduct audits of our systems, products, and practices. In the event that one or more customers determine that some aspect of our business does not meet regulatory requirements, we may be limited in our ability to continue or expand our business.

Our customers also include a number of non-U.S. governments, to which similar procurement, budgetary, contract, and audit risks of U.S. government contracting also apply, particularly in certain emerging markets where our customer base is less established. Such sales may also heighten our exposure to liabilities under anti-corruption laws. In addition, compliance with complex regulations and contracting provisions in a variety of jurisdictions can be expensive and consume significant financial and management resources. In certain jurisdictions, our ability to win business may be constrained by political and other factors unrelated to our competitive position in the market. Each of these difficulties could materially adversely affect our business and results of operations.

Any future litigation against us could be costly and time-consuming to defend.

From time to time, we may become subject to legal proceedings and claims, such as claims brought by our customers in connection with commercial disputes, employment claims, including claims related to the loss of employee equity grants upon termination, intellectual property claims, or securities class actions or other claims related to volatility in the trading price of our common stock. Litigation might result in substantial costs and may divert management’s attention and resources, which might seriously harm our business, financial condition, and results of operations. Insurance might not cover such claims, provide sufficient payments to cover all the costs to resolve one or more such claims, or continue to be available on terms acceptable to us (including premium increases or the imposition of large deductible or co-insurance requirements). A claim brought against us that is uninsured or underinsured could result in unanticipated costs, potentially harming our business, financial position, and results of operations. In addition, we cannot be sure that our existing insurance coverage and coverage for errors and omissions will continue to be available on acceptable terms or that our insurers will not deny coverage as to any future claim.

Unfavorable conditions in our industry or the global economy, or reductions in cloud spending, could limit our ability to grow our business and negatively affect our results of operations.

Our results of operations may vary based on the impact of changes in our industry or the global economy on us or our customers and potential customers. Negative conditions in the general economy both in the United States and abroad, including conditions resulting from changes in gross domestic product growth, financial and credit market fluctuations, international trade relations, inflation, pandemic (such as the COVID-19 pandemic), political turmoil, natural catastrophes, warfare, and terrorist attacks on the United States, Europe, the Asia-Pacific region, Japan, or elsewhere, could cause a decrease in business investments, including spending on cloud technologies, and negatively affect the growth of our business. Competitors, many of whom are larger and have greater financial resources than we do, may respond to challenging market conditions by lowering prices in an attempt to attract our customers. We cannot predict the timing, strength, or duration of any economic slowdown, instability, or recovery, generally or within any particular industry.

Our current operations are international in scope, and we plan further geographic expansion, creating a variety of operational challenges.

A component of our growth strategy involves the further expansion of our operations and customer base internationally. Customer accounts outside the United States generated 20% of our revenue for the fiscal year ended January 31, 2022. We are continuing to adapt to and develop strategies to address international markets, but there is no guarantee that such efforts will have the desired effect. For example, we anticipate that we will need to establish relationships with new partners in order to expand into certain countries, and if we fail to identify, establish, and maintain such relationships, we may be unable to execute on our expansion plans. We expect that our international activities will continue to grow for the foreseeable future as we continue to pursue opportunities in existing and new international markets, which will require significant dedication of management attention and financial resources.

Our current and future international business and operations involve a variety of risks, including:

- slower than anticipated public cloud adoption by international businesses;
- changes in a specific country's or region's political, economic, or legal and regulatory environment, including the effects of Brexit, pandemics, tariffs, trade wars, sanctions, or long-term environmental risks;
- the need to adapt and localize our platform for specific countries;
- greater difficulty collecting accounts receivable and longer payment cycles;
- unexpected changes in trade relations, regulations, or laws;
- new, evolving, and more stringent regulations relating to privacy and data security and the unauthorized use of, or access to, commercial and personal information;
- differing and potentially more onerous labor regulations where labor laws are generally more advantageous to employees as compared to the United States, including regulations governing terminations in locations that do not permit at-will employment and deemed hourly wage and overtime regulations;
- challenges inherent in efficiently managing, and the increased costs associated with, an increased number of employees over large geographic distances, including the need to implement appropriate systems, policies, benefits, and compliance programs that are specific to each jurisdiction;
- difficulties in managing a business in new markets with diverse cultures, languages, customs, legal systems, alternative dispute systems, and regulatory systems;
- increased travel, real estate, infrastructure, and legal compliance costs associated with international operations;
- currency exchange rate fluctuations and the resulting effect on our revenue, RPO, and expenses, and the cost and risk of entering into hedging transactions to the extent we do so in the future;
- limitations on, or charges or taxes associated with, our ability to reinvest earnings from operations in one country to fund the capital needs of our operations in other countries;
- laws and business practices favoring local competitors or general market preferences for local vendors;
- limited or insufficient intellectual property protection or difficulties obtaining, maintaining, protecting, or enforcing our intellectual property rights, including our trademarks and patents;
- political instability, military conflict or war, or terrorist activities;
- COVID-19 or any other pandemics or epidemics that could result in decreased economic activity in certain markets; additional costs associated with travel, return to work, or other restrictions that are specific to certain markets; decreased use of our products and services; or decreased ability to import, export, or sell our products and services to existing or new customers in international markets;
- exposure to liabilities under anti-corruption and anti-money laundering laws, including the U.S. Foreign Corrupt Practices Act of 1977, as amended (FCPA), U.S. bribery laws, the U.K. Bribery Act, and similar laws and regulations in other jurisdictions;
- burdens of complying with laws and regulations related to taxation; and

- regulations, adverse tax burdens, and foreign exchange controls that could make it difficult or costly to repatriate earnings and cash.

We expect to invest substantial time and resources to further expand our international operations and, if we are unable to do so successfully and in a timely manner, our business and results of operations will suffer.

We may require additional capital to support the growth of our business, and this capital might not be available on acceptable terms, if at all.

We have funded our operations since inception primarily through equity financings, payments received from our customers, and more recently, proceeds from our IPO. We cannot be certain if our operations will generate sufficient cash to fully fund our ongoing operations or the growth of our business. We intend to continue to make investments to support our business, which may require us to engage in equity or debt financings to secure additional funds. Additional financing may not be available on terms favorable to us, if at all. If adequate funds are not available on acceptable terms, we may be unable to invest in future growth opportunities, which could harm our business, operating results, and financial condition. If we incur debt, the debt holders would have rights senior to holders of common stock to make claims on our assets, and the terms of any debt could restrict our operations, including our ability to pay dividends on our common stock. Furthermore, if we issue additional equity securities, stockholders will experience dilution, and the new equity securities could have rights senior to those of our common stock. Because our decision to issue securities in the future will depend on numerous considerations, including factors beyond our control, we cannot predict or estimate the amount, timing, or nature of any future issuances of debt or equity securities. As a result, our stockholders bear the risk of future issuances of debt or equity securities reducing the value of our common stock and diluting their interests.

We are exposed to fluctuations in currency exchange rates and interest rates, which could negatively affect our results of operations and our ability to invest and hold our cash.

Our sales are currently denominated in U.S. dollars and in Euros, and will likely be denominated in other currencies in the future. Because we report our results of operations and revenue in U.S. dollars, we currently face exposure to foreign currency translation risk and may in the future face other foreign currency risks. If we are not able to successfully hedge against the risks associated with currency fluctuations, our results of operations could be adversely affected. For example, for international customers with sales denominated in U.S. dollars, a strengthening of the U.S. dollar could increase the real cost of our platform to such customers, which could adversely affect our results of operations. In addition, an increasing portion of our operating expenses is incurred outside the United States. These operating expenses are denominated in foreign currencies and are subject to fluctuations due to changes in foreign currency exchange rates. In addition, we are exposed to fluctuations in interest rates, which may result in a negative interest rate environment, in which interest rates drop below zero. In such an environment, any cash that we may hold with financial institutions will yield a storage charge instead of earning interest income, which may encourage us to spend our cash or make high-risk investments, all of which could adversely affect our financial position, results of operations, and cash flows.

If our estimates or judgments relating to our critical accounting policies prove to be incorrect, our results of operations could be adversely affected.

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (GAAP) requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes appearing elsewhere herein. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, as provided in the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates.” The results of these estimates form the basis for making judgments about the carrying values of assets, liabilities, revenue, costs and expenses, and related disclosures. Our results of operations may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our results of operations to fall below the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

Our business could be disrupted by catastrophic occurrences and similar events.

Our platform and the public cloud infrastructure on which our platform relies are vulnerable to damage or interruption from catastrophic occurrences, such as earthquakes, floods, fires, power loss, telecommunication failures, military conflict or war, terrorist attacks, criminal acts, sabotage, other intentional acts of vandalism and misconduct, geopolitical events, disease, such as the COVID-19 pandemic, and similar events. Some of our United States corporate offices in which we operate and certain of the public cloud data centers on which our platform runs are located in the San Francisco Bay Area and Pacific Northwest, regions known for seismic activity. Despite any precautions we may take, the occurrence of a natural disaster or other unanticipated problems at our facilities or the facilities of our public cloud providers could result in disruptions, outages, and other performance and quality problems. If we are unable to develop adequate plans to ensure that our business functions continue to operate during and after a disaster and to execute successfully on those plans in the event of a disaster or emergency, our business would be seriously harmed. In addition, the impacts of climate change on the global economy and our industry are rapidly evolving. As a result, we may be subject to increased or conflicting regulations, reporting requirements, standards, or expectations.

Risks Related to Our Intellectual Property

Our intellectual property rights may not protect our business or provide us with a competitive advantage.

To be successful, we must protect our technology and brand in the United States and other jurisdictions through trademarks, trade secrets, patents, copyrights, service marks, invention assignments, contractual restrictions, and other intellectual property rights and confidentiality procedures. Despite our efforts to implement these protections, they may not protect our business or provide us with a competitive advantage for a variety of reasons, including:

- the failure by us to obtain patents and other intellectual property rights for important innovations or maintain appropriate confidentiality and other protective measures to establish and maintain our trade secrets;
- to the extent a customer or partner owns any intellectual property created through a professional services engagement, our inability to use or monetize that intellectual property as part of our business;
- uncertainty in, and evolution of, legal standards relating to the validity, enforceability, and scope of protection of intellectual property rights;
- potential invalidation of our intellectual property rights through administrative processes or litigation;
- our inability to detect infringement or other misappropriation of our intellectual property rights by third parties; and
- other practical, resource, or business limitations on our ability to enforce our rights.

Further, the laws of certain foreign countries, particularly certain developing countries, do not provide the same level of protection of corporate proprietary information and assets, such as intellectual property, trademarks, trade secrets, know-how, and records, as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property or proprietary rights abroad. We may also be exposed to material risks of theft or unauthorized reverse engineering of our proprietary information and other intellectual property, including technical data, data sets, or other sensitive information. Our efforts to enforce our intellectual property rights in such foreign countries may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop, which could have a material adverse effect on our business, financial condition, and results of operations. Moreover, if we are unable to prevent the disclosure of our trade secrets to third parties, or if our competitors independently develop any of our trade secrets, we may not be able to establish or maintain a competitive advantage in our market, which could seriously harm our business.

Litigation may be necessary to enforce our intellectual property or proprietary rights, protect our trade secrets, or determine the validity and scope of proprietary rights claimed by others. Any litigation, whether or not resolved in our favor, could result in significant expense to us, divert the efforts of our technical and management personnel, and result in counterclaims with respect to infringement of intellectual property rights by us. If we are unable to prevent third parties from infringing upon or misappropriating our intellectual property or are required to incur substantial expenses defending our intellectual property rights, our business, financial condition, and results of operations may be materially adversely affected.

We may become subject to intellectual property disputes, which are costly and may subject us to significant liability and increased costs of doing business.

We compete in markets where there are a large number of patents, copyrights, trademarks, trade secrets, and other intellectual and proprietary rights, as well as disputes regarding infringement of these rights. In addition, many of the holders of patents, copyrights, trademarks, trade secrets, and other intellectual and proprietary rights have extensive intellectual property portfolios and greater resources than we do to enforce their rights. As compared to our large competitors, our patent portfolio is relatively undeveloped and may not provide a material deterrent to such assertions or provide us with a strong basis to counterclaim or negotiate settlements. Further, to the extent assertions are made against us by entities that hold patents but are not operating companies, our patent portfolio may not provide deterrence because such entities are not concerned with counterclaims.

Any intellectual property litigation to which we become a party may require us to do one or more of the following:

- cease selling, licensing, or using products or features that incorporate the intellectual property rights that we allegedly infringe, misappropriate, or violate;
- require us to change the name of our products or services;
- make substantial payments for legal fees, settlement payments, or other costs or damages, including indemnification of third parties;
- obtain a license or enter into a royalty agreement, either of which may not be available on reasonable terms or at all, in order to obtain the right to sell or use the relevant intellectual property; or
- redesign the allegedly infringing products to avoid infringement, misappropriation, or violation, which could be costly, time-consuming, or impossible.

Intellectual property litigation is typically complex, time consuming, and expensive to resolve and would divert the time and attention of our management and technical personnel. It may also result in adverse publicity, which could harm our reputation and ability to attract or retain employees, customers, or partners. As we grow, we may experience a heightened risk of allegations of intellectual property infringement. An adverse result in any litigation claims against us could have a material adverse effect on our business, financial condition, and results of operations.

If we use open source software inconsistent with our policies and procedures or the license terms applicable to such software, we could be subject to legal expenses, damages, or costly remediation or disruption to our business.

We use open source software in our platform. From time to time, companies that use third-party open source software have faced claims challenging the use of such open source software and their compliance with the terms of the applicable open source license. We may be subject to suits by parties claiming ownership of what we believe to be open source software or claiming non-compliance with the applicable open source licensing terms. Additionally, while we have policies and procedures in place designed to govern our use of open source software, there is a risk that we may incorporate open source software with onerous licensing terms, including the obligation to make our source code available for others to use or modify without compensation to us, or inadvertently use third-party open source software in a manner that exposes us to claims of non-compliance with the applicable terms of such license, including claims for infringement of intellectual property rights or for breach of contract. If we receive an allegation that we have violated an open source license, we may incur significant legal expenses, be subject to damages, be required to redesign our product to remove the open source software or publicly release certain portions of our proprietary source code, or be required to comply with onerous license restrictions, all of which could have a material impact on our business. Even in the absence of a claim, if we discover the use of open source software inconsistent with our policies, we could expend significant time and resources to replace the open source software or obtain a commercial license, if available. All of these risks are heightened by the fact that the ownership of open source software can be uncertain, leading to litigation, and many of the licenses applicable to open source software have not been interpreted by courts, and these licenses could be construed to impose unanticipated conditions or restrictions on our ability to commercialize our products. Any use of open source software inconsistent with our policies or licensing terms could harm our business and financial position.

Risks Related to Our Tax, Legal, and Regulatory Environment

We are subject to stringent and changing obligations related to data privacy and security, and the failure or perceived failure to comply with these obligations could result in significant fines and liability or otherwise result in substantial harm to our business and prospects.

We are subject to data privacy and protection laws, regulations, guidance, external and internal policies and other documentation, industry standards, certifications, and contractual and other obligations that apply to the collection, transmission, storage, use, and other processing of personal information. These obligations are rapidly evolving, extensive, complex, and include inconsistencies and uncertainties. Examples of recent and anticipated developments that have or could impact our business include the following:

- The European Union's (EU) General Data Protection Regulation (GDPR) and the United Kingdom's General Data Protection Regulation established strict requirements applicable to the handling of personal information.

- The EU has proposed the Regulation on Privacy and Electronic Communications, which, if adopted, would impose new obligations on using personal information in the context of electronic communications, particularly with respect to online tracking technologies and direct marketing.

- Certain other jurisdictions have enacted data localization laws and cross-border personal information transfer laws, which could make it more difficult for us to transfer personal information across jurisdictions (such as transferring or receiving personal information that originates in the EU), or to enable our customers to transfer or replicate their data across jurisdictions using our platform. Existing mechanisms that may facilitate cross-border personal information transfers may change or be invalidated.

- In the United States, federal, state, and local governments have enacted or proposed data privacy and security laws, including data breach notification laws, personal data privacy laws, and consumer protection laws. For example, the California Consumer Privacy Act (CCPA) provides increased privacy rights and protections, including the ability to opt out of specific disclosures of their personal information. Further, it is anticipated that the California Privacy Rights Act of 2020 (CPRA) will expand the CCPA and establish the California Privacy Protection Agency for purposes of implementing and enforcing the CPRA, which could increase the risk of an enforcement action. Other U.S. states have adopted, or are considering adopting, similar laws.

- Other government bodies have implemented laws and are considering further regulating artificial intelligence and machine learning.

- The certifications we may maintain and the standards that may apply to our business, such as the U.S. Federal Risk and Authorization Management Program, PCI-DSS, ISO/IEC 27001, HI-TRUST CSF, among others, are becoming more stringent.

These and other similar legal and regulatory developments could contribute to legal and economic uncertainty, increase our exposure to liability, affect how we design, market, and sell our platform, and how we operate our business, how our customers and partners process and share data, how we process and use data, and how we transfer personal data from one jurisdiction to another, any of which could require us to take on more onerous obligations in our contracts, impact our ability to operate in certain jurisdictions, and/or negatively impact the types of data available on or the demand for our platform. It is possible that new laws may be adopted or existing laws may be interpreted and applied in a manner that is inconsistent with our practices and our efforts to comply with the evolving data protection rules may be unsuccessful. We may incur substantial costs to comply with such laws and regulations, to meet the demands of our customers relating to their own compliance with applicable laws and regulations, and to establish and maintain internal policies, self-certifications, and third-party certifications supporting our compliance programs. Our customers may delegate their GDPR compliance or other privacy law obligations to us, and we may otherwise be required to expend resources to assist our customers with such compliance obligations.

Although we endeavor to comply with applicable data privacy and security obligations, any actual or perceived non-compliance with such obligations could result in proceedings, investigations, or claims against us by regulatory authorities, customers, or others, leading to reputational harm, significant fines, litigation costs, additional reporting requirements or oversight, bans on processing personal information, orders to destroy or not use personal information, limitations in our ability to develop or commercialize our platform, inability to process personal information or operate in certain jurisdictions, and other damages. For example, if regulators assert that we have failed to comply with the GDPR, we may be subject to fines of up to EUR 20.0 million or 4% of our worldwide annual revenue, whichever is greater, as well as potential data processing restrictions and penalties. Even if we are not determined to have violated these laws and other obligations, investigations into these issues typically require the expenditure of significant resources and generate negative publicity. In addition, any failure by us or our third-party service providers to comply with applicable obligations could result in proceedings against us. Any of these events could have a material adverse effect on our business, financial condition, and results of operations.

We may publish privacy policies and other documentation regarding our collection, processing, use, and disclosure of personal information, or other confidential information. Although we endeavor to comply with our published policies, certifications, and documentation, we or our vendors may at times fail to do so or may be perceived to have failed to do so. Claims that we have violated individuals' privacy rights or failed to comply with data protection laws or applicable privacy notices even if we are not found liable, could be expensive and time-consuming to defend and could result in adverse publicity that could harm our business.

We are subject to anti-corruption, anti-bribery, anti-money laundering, and similar laws, and non-compliance with such laws can subject us to criminal or civil liability and harm our business, financial condition, and results of operations.

We are subject to the FCPA, U.S. domestic bribery laws, the U.K. Bribery Act 2010, and other anti-corruption and anti-money laundering laws in the countries in which we conduct business. Anti-corruption and anti-bribery laws have been enforced aggressively in recent years and are interpreted broadly to generally prohibit companies, their employees, and their third-party intermediaries from authorizing, offering, or providing, directly or indirectly, improper payments or benefits to recipients in the public or private sector. As we increase our international sales and business and sales to the public sector, we may engage with business partners and third-party intermediaries to market or resell our products and to obtain necessary permits, licenses, and other regulatory approvals. In addition, we or our third-party intermediaries may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities. We can be held liable for the corrupt or other illegal activities of these third-party intermediaries, our employees, representatives, contractors, partners, and agents, even if we do not explicitly authorize such activities.

While we have policies and procedures to address compliance with such laws, there is a risk that our employees, agents, and other third parties with which we do business, including reseller and system integrator partners, will take actions in violation of our policies and applicable law, for which we may be ultimately held responsible. As we expand internationally and into the public sector market, our risks under these laws may increase.

Detecting, investigating, and resolving actual or alleged violations of anti-corruption laws can require a significant diversion of time, resources, and attention from senior management. In addition, noncompliance with anti-corruption, anti-bribery, or anti-money laundering laws could subject us to whistleblower complaints, investigations, sanctions, settlements, prosecution, enforcement actions, fines, damages, other civil or criminal penalties or injunctions, suspension or debarment from contracting with certain persons, reputational harm, adverse media coverage, and other collateral consequences. If any subpoenas or investigations are launched, or governmental or other sanctions are imposed, or if we do not prevail in any possible civil or criminal proceeding, our business, financial condition, and results of operations could be harmed.

We are subject to governmental export and import controls that could impair our ability to compete in international markets or subject us to liability if we violate the controls.

Our platform is subject to U.S. export controls, including the U.S. Export Administration Regulations, and we incorporate encryption technology into our platform. This encryption technology may be exported outside of the United States only with the required export authorizations, including by license, a license exception, or other appropriate government authorizations, including the filing of an encryption classification request or self-classification report.

Obtaining the necessary export license or other authorization for a particular sale may be time-consuming and may result in the delay or loss of sales opportunities. Furthermore, our activities are subject to U.S. economic sanctions laws and regulations administered by various U.S. agencies, including the U.S. Treasury Department’s Office of Foreign Assets Control, that prohibit the sale or supply of most products and services to embargoed jurisdictions or sanctioned parties. Violations of U.S. sanctions or export control regulations can result in significant fines or penalties and possible incarceration for responsible employees and managers.

If our channel partners fail to obtain appropriate import, export, or re-export licenses or permits, we may also be adversely affected through reputational harm, as well as other negative consequences, including government investigations and penalties.

Also, various countries, in addition to the United States, regulate the import and export of certain encryption and other technology, including import and export licensing requirements, and have enacted laws that could limit our ability to distribute our platform in those countries. Changes in our platform or future changes in export and import regulations may create delays in the introduction of our platform in international markets, prevent our customers with international operations from using our platform globally or, in some cases, prevent the export or import of our platform to certain countries, governments, or persons altogether. From time to time, various governmental agencies have proposed additional regulation of encryption technology. Any change in export or import regulations, economic sanctions, or related legislation, increased export and import controls, or change in the countries, governments, persons, or technologies targeted by such regulations, could result in decreased use of our platform by, or in our decreased ability to export or sell our platform to, existing or potential customers with international operations. Any decreased use of our platform or limitation on our ability to export or sell our platform would adversely affect our business, financial condition, and results of operations.

Our international operations may subject us to greater than anticipated tax liabilities.

We are expanding our international operations to better support our growth into international markets. Our corporate structure and associated transfer pricing policies contemplate future growth in international markets, and consider the functions, risks, and assets of the various entities involved in intercompany transactions. The amount of taxes we pay in different jurisdictions may depend on the application of the tax laws of various jurisdictions, including the United States, to our international business activities, changes in tax rates, new or revised tax laws or interpretations of existing tax laws and policies, and our ability to operate our business in a manner consistent with our corporate structure and intercompany arrangements. The taxing authorities of the jurisdictions in which we operate may challenge our methodologies for pricing intercompany transactions pursuant to our intercompany arrangements or disagree with our determinations as to the income and expenses attributable to specific jurisdictions. If such a challenge or disagreement were to occur, and our position was not sustained, we could be required to pay additional taxes, interest, and penalties, which could result in one-time tax charges, higher effective tax rates, reduced cash flows, and lower overall profitability of our operations. Our financial statements could fail to reflect adequate reserves to cover such a contingency.

Changes in tax laws or tax rulings could materially affect our financial position, results of operations, and cash flows.

The tax regimes we are subject to or operate under, including income and non-income taxes, are unsettled and may be subject to significant change. Changes in tax laws, regulations, or rulings, or changes in interpretations of existing laws and regulations, could materially affect our financial position and results of operations. Many countries in Europe, as well as a number of other countries and organizations, including the Organization for Economic Cooperation and Development and the European Commission, have recently proposed, recommended, or (in the case of countries) enacted or otherwise become subject to changes to existing tax laws or new tax laws that could significantly increase our tax obligations in the countries where we do business or require us to change the manner in which we operate our business. Recently, in the United States, Congress and the Biden administration proposed legislation to make various tax law changes, including to increase U.S. taxation of international business operations and impose a global minimum tax. These proposals, recommendations and enactments include changes to the existing framework in respect of income taxes, as well as new types of non-income taxes (such as taxes based on a percentage of revenue or taxes applicable to digital services), which could apply to our business.

Due to the large and expanding scale of our international business activities, these types of changes to the taxation of our activities could increase our worldwide effective tax rate, increase the amount of taxes imposed on our business, and harm our financial position. Such changes may also apply retroactively to our historical operations and result in taxes greater than the amounts estimated and recorded in our financial statements.

Our ability to use our net operating loss carryforwards may be limited.

We have incurred substantial losses during our history, do not expect to become profitable in the near future, and may never achieve profitability. Unused U.S. federal net operating losses (NOLs) for taxable years beginning before January 1, 2018 may be carried forward to offset future taxable income, if any, until such unused NOLs expire. Under legislation enacted in 2017, informally titled the Tax Act, as modified by legislation enacted on March 27, 2020, entitled the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), U.S. federal NOLs incurred in taxable years beginning after December 31, 2017 can be carried forward indefinitely, but the deductibility of such U.S. federal NOLs in taxable years beginning after December 31, 2020 is limited to 80% of taxable income. At the state level, there may be periods during which the use of NOLs is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed. For example, in 2020, California passed legislation suspending the use of NOLs and limiting the utilization of tax credits for tax years 2020 through 2022. However, Senate Bill No. 113, signed into law in February 2022, has shortened that suspension period and restored the use of NOLs and full business credit utilization for tax year 2022.

As of January 31, 2022, we had U.S. federal, state, and foreign NOL carryforwards of $5.8 billion, $4.5 billion, and $162.7 million, respectively. Of the $5.8 billion U.S. federal NOL carryforwards, $5.7 billion may be carried forward indefinitely with utilization limited to 80% of taxable income, and the remaining $0.1 billion will begin to expire in 2032. The state NOL carryforwards begin to expire in 2022. Of the $162.7 million foreign NOL carryforwards, $149.6 million may be carried forward indefinitely, and the remaining $13.1 million will begin to expire in 2027.

In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, and corresponding provisions of state law, if a corporation undergoes an “ownership change,” which is generally defined as one or more stockholders or groups of stockholders who own at least 5% of our stock increasing their ownership by more than 50 percentage points over their lowest ownership percentage within a rolling three-year period, the corporation’s ability to use its pre-change NOL carryforwards to offset its post-change income or taxes may be limited. It is possible that we have experienced or may experience ownership changes as a result of shifts in our stock ownership, some of which may be outside of our control. This could limit the amount of NOLs that we can utilize annually to offset future taxable income or tax liabilities. Subsequent ownership changes and changes to the U.S. tax rules in respect of the utilization of NOLs may further affect the limitation in future years.

Changes in our effective tax rate or tax liability may have an adverse effect on our results of operations.

We are subject to income taxes in the United States and various foreign jurisdictions. The determination of our worldwide provision for income taxes and other tax liabilities requires significant judgment by management, and there are many transactions where the ultimate tax determination is uncertain. We believe that our provision for income taxes is reasonable, but the ultimate tax outcome may differ from the amounts recorded in our consolidated financial statements and may materially affect our financial results in the period or periods in which such outcome is determined.

Our effective tax rate could increase due to several factors, including:

- changes in the relative amounts of income before taxes in the various jurisdictions in which we operate that have differing statutory tax rates;
- changes in tax laws, tax treaties, and regulations or the interpretation of them;
- changes to our assessment about our ability to realize our deferred tax assets that are based on estimates of our future results, the prudence and feasibility of possible tax planning strategies, and the economic and political environments in which we do business;
- the outcome of current and future tax audits, examinations, or administrative appeals; and
- the effects of acquisitions.

Any of these developments could adversely affect our results of operations.

Risks Related to the Ownership of Our Common Stock

Our stock price may be volatile, and the value of our common stock may decline.

The market price of our common stock has been and may continue to be highly volatile and may fluctuate or decline substantially as a result of a variety of factors, some of which are beyond our control, including:

- actual or anticipated fluctuations in our financial condition or results of operations;
- variance in our actual or projected financial performance from expectations of securities analysts;
- changes in the pricing or consumption of our platform;
- updates to our projected operating and financial results;
- changes in laws or regulations applicable to our business;
- announcements by us or our competitors of significant business developments, acquisitions, investments, or new offerings;
- significant data breaches, disruptions to, or other incidents involving our platform;
- our involvement in litigation;
- future sales of our common stock by us or our major pre-IPO stockholders, including as a result of the expiration of market standoff agreements in September 2021 relating to concurrent private placements completed at the time of our IPO;
- changes in senior management or key personnel;
- the trading volume of our common stock;
- changes in the anticipated future size and growth rate of our market; and
- general economic and market conditions.

Broad market and industry fluctuations, as well as general economic, political, regulatory, and market conditions, such as recessions, interest rate changes, or international currency fluctuations, may also negatively impact the market price of our common stock. In addition, technology stocks have historically experienced high levels of volatility. In the past, companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future, which could result in substantial expenses and divert our management's attention.

Future sales of our common stock in the public market could cause the market price of our common stock to decline.

Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. Many of our stockholders who held our capital stock prior to completion of our IPO have substantial unrecognized gains on the value of the equity they hold based upon the price at which shares were sold in our IPO, and therefore, they may take steps to sell their shares or otherwise secure the unrecognized gains on those shares. We are unable to predict the timing of or the effect that such sales may have on the prevailing market price of our common stock.

The shares of common stock subject to outstanding options and restricted stock unit awards (RSUs) under our equity incentive plans, and the shares reserved for future issuance under our equity incentive plans, will become eligible for sale in the public market upon issuance, subject to compliance with applicable securities laws.

Further, certain holders of our common stock have rights, subject to some conditions, to require us to file registration statements covering the sale of their shares or to include their shares in registration statements that we may file for ourselves or other stockholders.

Our issuance of additional capital stock in connection with financings, acquisitions, investments, our equity incentive plans, or otherwise will dilute all other stockholders.

We expect to issue additional capital stock in the future that will result in dilution to all other stockholders. We expect to grant equity awards to employees, directors, and consultants under our equity incentive plans. We may also raise capital through equity financings in the future. As part of our business strategy, we may acquire or make investments in companies, products, or technologies and issue equity securities to pay for any such acquisition or investment. Any such issuances of additional capital stock may cause stockholders to experience significant dilution of their ownership interests and the per share value of our common stock to decline.

If securities or industry analysts publish unfavorable or inaccurate research about our business, the market price or trading volume of our common stock could decline.

The market price and trading volume of our common stock is heavily influenced by the way analysts interpret our financial information and other disclosures. We do not have control over these analysts. If securities analysts or industry analysts cease coverage of us, our stock price would be negatively affected. If securities or industry analysts downgrade our common stock or publish negative reports about our business, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our common stock could decrease, which might cause our stock price to decline and could decrease the trading volume of our common stock.

We do not intend to pay dividends for the foreseeable future and, as a result, the ability of the holders of our common stock to achieve a return on their investment will depend on appreciation in the price of our common stock.

We have never declared or paid any cash dividends on our capital stock, and we do not intend to pay any cash dividends in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors. Accordingly, holders of our common stock may need to rely on sales of our common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment.

We incur significant costs operating as a public company, and our management is required to devote substantial time to compliance with our public company responsibilities and corporate governance practices.

As a public company, we incur significant legal, accounting, compliance, and other expenses that we did not incur as a private company, which we expect to further increase now that we are no longer an “emerging growth company.” Based on the market value of our common stock held by non-affiliates as of the last business day of our fiscal second quarter ended July 31, 2021, we ceased to be an “emerging growth company” on January 31, 2022. The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the New York Stock Exchange, and other applicable securities rules and regulations impose various requirements on public companies. Our management and other personnel devote a substantial amount of time to compliance with these requirements. Moreover, these rules and regulations have increased our legal and financial compliance costs and make some activities more time-consuming and costly. We cannot predict or estimate the amount of additional costs we will incur as a public company or the specific timing of such costs.

As a result of being a public company, we are obligated to develop and maintain proper and effective internal control over financial reporting, and any failure to maintain the adequacy of these internal controls may adversely affect investor confidence in our company and, as a result, the value of our common stock.

We are required, pursuant to Section 404, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting as of January 31, 2022. This assessment includes disclosure of any material weaknesses identified by our management in our internal control over financial reporting. In addition, our independent registered public accounting firm is required to attest to the effectiveness of our internal control over financial reporting. Our compliance with Section 404 requires that we incur substantial expenses and expend significant management efforts. We have established an internal audit group, and as we continue to grow, we will hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and update the system and process documentation necessary to perform the evaluation needed to comply with Section 404.

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During the evaluation and testing process of our internal controls, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to certify that our internal control over financial reporting is effective. We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition or results of operations. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of our company more difficult, limit attempts by our stockholders to replace or remove our current management, and limit the market price of our common stock.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws may have the effect of delaying or preventing a change of control or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws include provisions that:

- authorize our board of directors to issue, without further action by the stockholders, shares of undesignated preferred stock with terms, rights, and preferences determined by our board of directors that may be senior to our common stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our board of directors, the chairperson of our board of directors, or our Chief Executive Officer;
- establish an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for election to our board of directors;
- establish that our board of directors is divided into three classes, with each class serving three-year staggered terms;
- prohibit cumulative voting in the election of directors;
- provide that our directors may only be removed for cause;
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum; and
- require the approval of our board of directors or the holders of at least 66 2/3% of our outstanding shares of voting stock to amend our bylaws and certain provisions of our certificate of incorporation.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally, subject to certain exceptions, prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any “interested” stockholder for a period of three years following the date on which the stockholder became an “interested” stockholder. Any of the foregoing provisions could limit the price that investors might be willing to pay in the future for shares of our common stock, and they could deter potential acquirers of our company, thereby reducing the likelihood that holders of our common stock would receive a premium for their shares of our common stock in an acquisition.

Our amended and restated certificate of incorporation designates the Court of Chancery of the State of Delaware and, to the extent enforceable, the federal district courts of the United States of America as the exclusive forums for certain disputes between us and our stockholders, which will restrict our stockholders' ability to choose the judicial forum for disputes with us or our directors, officers, or employees.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: any derivative action or proceeding brought on our behalf, any action asserting a breach of a fiduciary duty, any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation, or our amended and restated bylaws, or any action asserting a claim against us that is governed by the internal affairs doctrine. This choice of forum provision does not apply to suits brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction.

Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These choice of forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees. If a court were to find either exclusive-forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could seriously harm our business.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We are a Delaware corporation with a globally distributed workforce. We recruit and hire employees in jurisdictions around the world based on a range of factors, including the available talent pool, the type of work being performed, the relative cost of labor, regulatory requirements and costs, and other considerations. Since April 2020, the majority of our workforce has been working remotely. Although we have recently opened most of our offices for voluntary use and we expect many of our employees to return to physical offices during the fiscal year ending January 31, 2023, the nature and extent of that return is uncertain. We currently lease offices in the United States, including in Atlanta, Georgia; Bellevue, Washington; Bozeman, Montana; Denver, Colorado; Dublin, California; and San Mateo, California. We also have offices in multiple locations in Canada, Europe, and the APJ and EMEA regions. All of our offices are leased, and we do not own any real property. While we believe that our current facilities are adequate to meet our foreseeable needs, we intend to expand our facilities in the future as we continue to add employees around the world. We believe that suitable additional or alternative space will be available to accommodate our future growth.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we have been and will continue to be subject to legal proceedings and claims. We are not presently a party to any legal proceedings that, if determined adversely to us, would individually or taken together have a material adverse effect on our business, results of operations, financial condition, or cash flows. We have received, and may in the future continue to receive, claims from third parties asserting, among other things, infringement of their intellectual property rights. Future litigation may be necessary to defend ourselves, our partners, and our customers by determining the scope, enforceability, and validity of third-party proprietary rights, or to establish our proprietary rights. The results of any current or future litigation cannot be predicted with certainty, and regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

ITEM 4. MINE SAFETY DISCLOSURES

None.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Price of Our Class A Common Stock

Our Class A common stock, par value $0.0001 per share, is listed on the New York Stock Exchange, under the symbol "SNOW" and began trading on September 16, 2020. Prior to that date, there was no public trading market for our Class A common stock.

Holders of Record

As of March 1, 2022, there were 133 stockholders of record of our Class A common stock. The actual number of holders of our Class A common stock is greater than the number of record holders and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers or other nominees. The number of holders of record presented here also does not include stockholders whose shares may be held in trust by other entities.

On March 1, 2021, all shares of our then-outstanding Class B common stock were automatically converted into the same number of shares of Class A common stock pursuant to the terms of our amended and restated certificate of incorporation. See Note 11, "Equity," in the notes to our consolidated financial statements included elsewhere in this Annual Form on Form 10-K for further details.

Dividend Policy

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all available funds and future earnings, if any, to fund the development and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination regarding the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on then-existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects, and other factors our board of directors may deem relevant.

Securities Authorized for Issuance under Equity Compensation Plans

The information required by this item is incorporated by reference to the definitive Proxy Statement for the 2022 Annual Meeting of Stockholders, which will be filed with the SEC no later than 120 days after January 31, 2022.

Recent Sales of Unregistered Equity Securities

None.

Use of Proceeds

On September 18, 2020, we closed our IPO of 32,200,000 shares of our Class A common stock at an offering price of $120.00 per share, including 4,200,000 shares pursuant to the exercise of the underwriters' option to purchase additional shares of our Class A common stock, resulting in gross proceeds to us of $3.7 billion, net of the underwriting discounts. All of the shares issued and sold in our IPO were registered under the Securities Act pursuant to a registration statement on Form S-1 (File No. 333-248280), which was declared effective by the SEC on September 15, 2020. We incurred offering expenses of approximately $0.3 million.

Immediately subsequent to the closing of our IPO, each of Salesforce Ventures LLC and Berkshire Hathaway Inc. purchased from us approximately 2,083,333 shares of our Class A common stock at a price per share equal to the IPO price of $120.00 per share in two concurrent private placements. We received aggregate proceeds of $500.0 million and did not pay underwriting discounts with respect to the shares of Class A common stock that were sold in these private placements.

There has been no material change in the planned use of proceeds from our IPO as described in our Final Prospectus for our IPO dated as of September 15, 2020 and filed with the SEC pursuant to Rule 424(b)(4) on September 16, 2020.

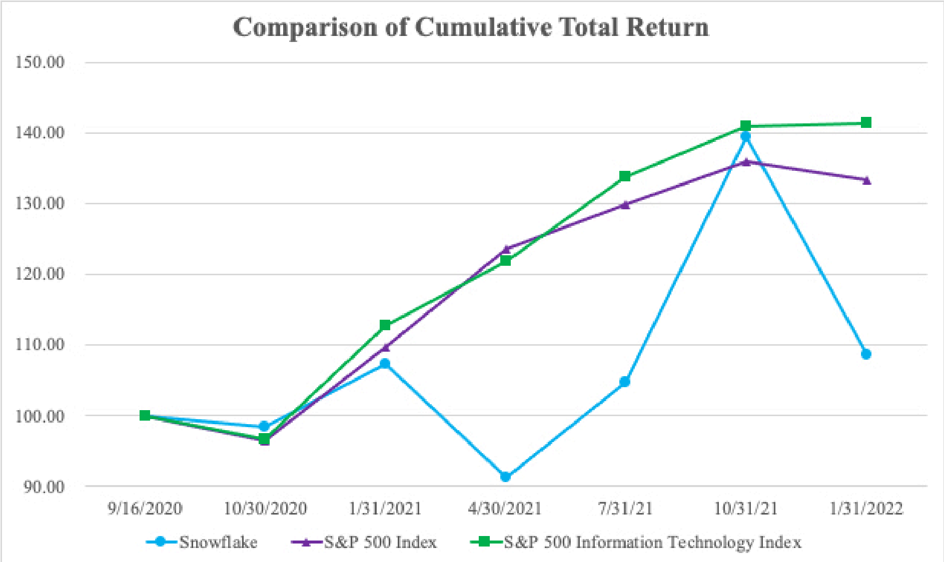
Issuer Purchases of Equity Securities

None.

Stock Performance Graph

This performance graph shall not be deemed “soliciting material” or to be “filed” with the SEC, for purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities under that Section, and shall not be deemed to be incorporated by reference into any of our filings under the Securities Act.

The graph below shows the cumulative total return to our stockholders between September 16, 2020 (the date that our Class A common stock commenced trading on the New York Stock Exchange) through January 31, 2022 in comparison to the S&P 500 Index and the S&P 500 Information Technology Index. The graph assumes (i) that $100 was invested in each of our Class A common stock, the S&P 500 Index, and the S&P 500 Information Technology Index at their respective closing prices on September 16, 2020 and (ii) reinvestment of gross dividends. The stock price performance shown in the graph represents past performance and should not be considered an indication of future stock price performance.



ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes appearing elsewhere in this Annual Report on Form 10-K. This discussion, particularly information with respect to our future results of operations or financial condition, business strategy and plans, and objectives of management for future operations, includes forward-looking statements that involve risks and uncertainties as described under the heading "Special Note About Forward-Looking Statements" in this Annual Report on Form 10-K. You should review the disclosure under the heading "Risk Factors" in this Annual Report on Form 10-K for a discussion of important factors that could cause our actual results to differ materially from those anticipated in these forward-looking statements.

In addition to our results determined in accordance with GAAP, free cash flow, a non-GAAP financial measure, is included in the section titled "Key Business Metrics." This non-GAAP financial measure is not meant to be considered in isolation or as a substitute for, or superior to, comparable GAAP financial measures and should be read only in conjunction with our consolidated financial statements prepared in accordance with GAAP. Our presentation of this non-GAAP financial measure may not be comparable to similar measures used by other companies. We encourage investors to carefully consider our results under GAAP, as well as our supplemental non-GAAP information and the GAAP-to-non-GAAP reconciliation included in the section titled "Key Business Metrics—Free Cash Flow," to more fully understand our business.

Unless the context otherwise requires, all references in this report to "Snowflake," the "Company," "we," "our," "us," or similar terms refer to Snowflake Inc. and its subsidiaries.

A discussion regarding our financial condition and results of operations for the fiscal year ended January 31, 2022 compared to the fiscal year ended January 31, 2021 is presented below. A discussion regarding our financial condition and results of operations for the fiscal year ended January 31, 2021 compared to the fiscal year ended January 31, 2020 can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of our Annual Report on Form 10-K for the fiscal year ended January 31, 2021 filed with the SEC on March 31, 2021.

Overview

We believe in a data connected world where organizations have seamless access to explore, share, and unlock the value of data. To realize this vision, we deliver the Data Cloud, a network where Snowflake customers, partners, data providers, and data consumers can break down data silos and derive value from rapidly growing data sets in secure, governed, and compliant ways.

Our platform is the innovative technology that powers the Data Cloud, enabling customers to consolidate data into a single source of truth to drive meaningful business insights, build data-driven applications, and share data. We provide our platform through a customer-centric, consumption-based business model, only charging customers for the resources they use.

Our cloud-native architecture consists of three independently scalable but logically integrated layers across storage, compute, and cloud services. The storage layer ingests massive amounts and varieties of structured, semi-structured, and unstructured data to create a unified data record. The compute layer provides dedicated resources to enable users to simultaneously access common data sets for many use cases with minimal latency. The cloud services layer intelligently optimizes each use case's performance requirements with no administration. This architecture is built on three major public clouds across 31 regional deployments around the world. These deployments are generally interconnected to deliver the Data Cloud, enabling a consistent, global user experience.

We generate the substantial majority of our revenue from fees charged to our customers based on the storage, compute, and data transfer resources consumed on our platform as a single, integrated offering. For storage resources, consumption fees are based on the average terabytes per month of all of the customer's data stored in our platform. For compute resources, consumption fees are based on the type of compute resource used and the duration of use or, for some features, the volume of data processed. For data transfer resources, consumption fees are based on terabytes of data transferred, the public cloud provider used, and the region to and from which the transfer is executed.

Our customers typically enter into capacity arrangements with a term of one to four years, or consume our platform under on-demand arrangements in which we charge for use of our platform monthly in arrears. Consumption for most customers accelerates from the beginning of their usage to the end of their contract terms and often exceeds their initial capacity commitment amounts. When this occurs, our customers have the option to amend their existing agreement with us to purchase additional capacity or request early renewals. When a customer's consumption during the contract term does not exceed its capacity commitment amount, it may have the option to roll over any unused capacity to future periods, generally upon the purchase of additional capacity. For these reasons, we believe our deferred revenue is not a meaningful indicator of future revenue that will be recognized in any given time period.

Our go-to-market strategy is focused on acquiring new customers and driving continued use of our platform for existing customers. We primarily focus our selling efforts on large organizations and primarily sell our platform through a direct sales force, which targets technical and business leaders who are adopting a cloud strategy and leveraging data to improve their business performance. Our sales force is comprised of sales development, inside sales, and field sales personnel and is segmented by the industry, size, and region of prospective customers. Once our platform has been adopted, we focus on increasing the migration of additional customer workloads to our platform to drive increased consumption, as evidenced by our net revenue retention rate of 178% and 168% as of January 31, 2022 and 2021, respectively. See the section titled "Key Business Metrics" for a definition of net revenue retention rate.

Our platform is used globally by organizations of all sizes across a broad range of industries. As of January 31, 2022, we had 5,944 total customers, increasing from 4,139 customers as of January 31, 2021. Our platform has been adopted by many of the world's largest organizations that view Snowflake as a key strategic partner in their cloud and data transformation initiatives. As of January 31, 2022, our customers included 241 of the Fortune 500, based on the 2021 Fortune 500 list, and 488 of the Global 2000, based on the 2021 Forbes Global 2000 list, and those customers contributed approximately 26% and 40% of our revenue, respectively, for the fiscal year ended January 31, 2022. Each of our Fortune 500 and Global 2000 customer counts is subject to adjustments for annual updates to the Fortune 500 list by Fortune and to the Global 2000 list by Forbes, respectively, as well as acquisitions, consolidations, spin-offs, and other market activity with respect to such customers.

Initial Public Offering, Private Placements, and Elimination of Dual-Class Common Stock Structure

In September 2020, we completed our IPO and certain concurrent private placements that closed immediately subsequent to the closing of the IPO. On March 1, 2021, all shares of our then-outstanding Class B common stock were automatically converted into the same number of shares of Class A common stock pursuant to the terms of our amended and restated certificate of incorporation. No additional shares of Class B common stock will be issued following such conversion. See Note 11, "Equity," to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for further details.

Key Factors Affecting Our Performance

Adoption of our Platform and Expansion of the Data Cloud

Our future success depends in large part on the market adoption of our platform. While we see growing demand for our platform, particularly from large enterprises, many of these organizations have invested substantial technical, financial, and personnel resources in their legacy database products or big data offerings, despite their inherent limitations. While this makes it difficult to predict customer adoption rates and future demand, we believe that the benefits of our platform put us in a strong position to capture the significant market opportunity ahead.

Our platform powers the Data Cloud, a network of data providers, data consumers, and data application developers that enables our customers to securely share, connect, collaborate, monetize, and acquire live data sets. Our future growth will be increasingly dependent on our ability to increase consumption of our platform by building and expanding the Data Cloud.

Expanding Within our Existing Customer Base

Our large base of customers represents a significant opportunity for further consumption of our platform. While we have seen a rapid increase in the number of customers that have contributed more than $1 million in product revenue in the trailing 12 months, we believe that there is a substantial opportunity to continue growing these customers further, as well as continuing to expand the usage of our platform within our other existing customers. We plan to continue investing to encourage increased consumption and adoption of new use cases among our existing customers.

Once deployed, our customers often expand their use of our platform more broadly within the enterprise and across their ecosystem of customers and partners as they migrate more data to the public cloud, identify new use cases, and realize the benefits of our platform and the Data Cloud. However, because we generally recognize product revenue on consumption and not ratably over the term of the contract, we do not have visibility into the timing of revenue recognition from any particular customer. In any given period, there is a risk that customer consumption of our platform will be slower than we expect, which may cause fluctuations in our revenue and results of operations. New software releases or hardware improvements, like better storage compression and cloud infrastructure processor improvements, may make our platform more efficient, enabling customers to consume fewer compute, storage, and data transfer resources to accomplish the same workloads. To the extent these improvements do not result in an offsetting increase in new workloads, we may experience lower revenue. Our ability to increase usage of our platform by, and sell additional contracted capacity to, existing customers, and, in particular, large enterprise customers, will depend on a number of factors, including our customers’ satisfaction with our platform, competition, pricing, overall changes in our customers’ spending levels, the effectiveness of our and our partners’ efforts to help our customers realize the benefits of our platform, and the extent to which customers migrate new workloads to our platform over time.

Acquiring New Customers

We believe there is a substantial opportunity to further grow our customer base by continuing to make significant investments in sales and marketing and brand awareness. Our ability to attract new customers will depend on a number of factors, including our success in recruiting and scaling our sales and marketing organization, competitive dynamics in our target markets, and our ability to build and maintain partner relationships, including with global system integrators, resellers, and technology partners. We intend to expand our direct sales force, with a focus on specific industries and increasing sales to large organizations. While our platform is built for organizations of all sizes, we focus our selling efforts on large enterprise customers and customers with vast amounts of data, and providing industry-specific solutions. We may not achieve anticipated revenue growth from expanding our sales force to focus on large enterprises and specific industries if we are unable to hire, develop, integrate, and retain talented and effective sales personnel; if our new and existing sales personnel are unable to achieve desired productivity levels in a reasonable period of time; or if our sales and marketing programs are not effective.

Investing in Growth and Scaling our Business

We are focused on our long-term revenue potential. We believe that our market opportunity is large, and we will continue to invest significantly in scaling across all organizational functions in order to grow our operations both domestically and internationally. We have a history of introducing successful new features and capabilities on our platform, and we intend to continue to invest heavily to grow our business to take advantage of our expansive market opportunity rather than optimize for profitability or cash flow in the near future.

Key Business Metrics

We monitor the key business metrics set forth below to help us evaluate our business and growth trends, establish budgets, measure the effectiveness of our sales and marketing efforts, and assess operational efficiencies. The calculation of the key business metrics discussed below may differ from other similarly titled metrics used by other companies, securities analysts, or investors.

The following tables present a summary of key business metrics for the periods presented:

	Fiscal Year Ended January 31,		
	2022	2021	2020
Product revenue (in millions)	$ 1,140.5	$ 553.8	$ 252.2
Free cash flow (non-GAAP) (in millions)(1)	$ 81.2	$ (85.7)	$ (199.4)

	January 31, 2022	January 31, 2021	January 31, 2020
Remaining performance obligations (in millions)(2)	$ 2,646.5	$ 1,332.8	$ 426.3
Total customers	5,944	4,139	2,392
Net revenue retention rate	178 %	168 %	169 %
Customers with trailing 12-month product revenue greater than $1 million	184	77	41

(1) Free cash flow for the fiscal years ended January 31, 2022, 2021, and 2020 included the effect of $68.6 million, $14.1 million, and $0.2 million, respectively, in the net cash paid on payroll tax-related items on employee stock transactions. See the section titled “Free Cash Flow” for a reconciliation of free cash flow to the most directly comparable financial measure calculated in accordance with GAAP.

(2) As of January 31, 2022, our remaining performance obligations were approximately $2.6 billion, of which we expect approximately 52% to be recognized as revenue in the twelve months ending January 31, 2023 based on historical customer consumption patterns. The weighted-average remaining life of our capacity contracts was 2.1 years as of January 31, 2022. However, the amount and timing of revenue recognition are generally driven by customers' consumption, which is inherently variable at our customers’ discretion and can extend beyond the original contract term in cases where customers are permitted to roll over unused capacity to future periods, generally upon the purchase of additional capacity at renewal. In addition, our historical customer consumption patterns are not necessarily indicative of future results.

Product Revenue

Product revenue is a key metric for us because we recognize revenue based on platform consumption, which is inherently variable at our customers’ discretion, and not based on the amount and duration of contract terms. Product revenue is primarily derived from the consumption of compute, storage, and data transfer resources, which are consumed by customers on our platform as a single, integrated offering. Customers have the flexibility to consume more than their contracted capacity during the contract term and may have the ability to roll over unused capacity to future periods, generally upon the purchase of additional capacity at renewal. Our consumption-based business model distinguishes us from subscription-based software companies that generally recognize revenue ratably over the contract term and may not permit rollover. Because customers have flexibility in the timing of their consumption, which can exceed their contracted capacity or extend beyond the original contract term in many cases, the amount of product revenue recognized in a given period is an important indicator of customer satisfaction and the value derived from our platform. While customer use of our platform in any period is not necessarily indicative of future use, we estimate future revenue using predictive models based on customers' historical usage to plan and determine financial forecasts. Product revenue excludes our professional services and other revenue, which has been less than 10% of revenue for each of the periods presented.

Remaining Performance Obligations

Remaining performance obligations (RPO) represent the amount of contracted future revenue that has not yet been recognized, including (i) deferred revenue, and (ii) non-cancelable contracted amounts that will be invoiced and recognized as revenue in future periods. RPO excludes performance obligations from on-demand arrangements and certain time and materials contracts that are billed in arrears. Portions of RPO that are not yet invoiced and are denominated in foreign currencies are revalued into USD each period based on the applicable period-end exchange rates. RPO is not necessarily indicative of future product revenue growth because it does not account for the timing of customers' consumption or their consumption of more than their contracted capacity. Moreover, RPO is influenced by a number of factors, including the timing of renewals, the timing of purchases of additional capacity, average contract terms, seasonality, and the extent to which customers are permitted to roll over unused capacity to future periods, generally upon the purchase of additional capacity at renewal. Due to these factors, it is important to review RPO in conjunction with product revenue and other financial metrics disclosed elsewhere herein.

Total Customers

We count the total number of customers at the end of each period. For purposes of determining our customer count, we treat each customer account, including accounts for end-customers under a reseller arrangement, that has at least one corresponding capacity contract as a unique customer, and a single organization with multiple divisions, segments, or subsidiaries may be counted as multiple customers. For purposes of determining our customer count, we do not include customers that consume our platform only under on-demand arrangements. Our customer count is subject to adjustments for acquisitions, consolidations, spin-offs, and other market activity. We believe that the number of customers is an important indicator of the growth of our business and future revenue trends.

Net Revenue Retention Rate

We believe the growth in use of our platform by our existing customers is an important measure of the health of our business and our future growth prospects. We monitor our dollar-based net revenue retention rate to measure this growth. To calculate this metric, we first specify a measurement period consisting of the trailing two years from our current period end. Next, we define as our measurement cohort the population of customers under capacity contracts that used our platform at any point in the first month of the first year of the measurement period. Starting with the fiscal quarter ended October 31, 2021, the cohorts used to calculate net revenue retention rate include end-customers under a reseller arrangement. Although the impact is not material, we have adjusted all prior periods presented to reflect this inclusion. We then calculate our net revenue retention rate as the quotient obtained by dividing our product revenue from this cohort in the second year of the measurement period by our product revenue from this cohort in the first year of the measurement period. Any customer in the cohort that did not use our platform in the second year remains in the calculation and contributes zero product revenue in the second year. Our net revenue retention rate is subject to adjustments for acquisitions, consolidations, spin-offs, and other market activity. Since we will continue to attribute the historical product revenue to the consolidated contract, consolidation of capacity contracts within a customer's organization typically will not impact our net revenue retention rate unless one of those customers was not a customer at any point in the first month of the first year of the measurement period. Although our net revenue retention rate has increased over the periods presented above, we expect our net revenue retention rate to decrease over the long-term as customers that have consumed our platform for an extended period of time become a larger portion of both our overall customer base and our product revenue that we use to calculate net revenue retention rate, and as their consumption growth primarily relates to existing use cases rather than new use cases.

Customers with Trailing 12-Month Product Revenue Greater than $1 Million

Large customer relationships lead to scale and operating leverage in our business model. Compared with smaller customers, large customers present a greater opportunity for us to sell additional capacity because they have larger budgets, a wider range of potential use cases, and greater potential for migrating new workloads to our platform over time. As a measure of our ability to scale with our customers and attract large enterprises to our platform, we count the number of customers under capacity arrangements that contributed more than $1 million in product revenue in the trailing 12 months. Our customer count is subject to adjustments for acquisitions, consolidations, spin-offs, and other market activity.

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Free Cash Flow

We define free cash flow, a non-GAAP financial measure, as GAAP net cash provided by (used in) operating activities reduced by purchases of property and equipment and capitalized internal-use software development costs. We believe information regarding free cash flow provides useful supplemental information to investors because it is an indicator of the strength and performance of our core business operations.

The following table presents a reconciliation of free cash flow to net cash provided by (used in) operating activities, the most directly comparable financial measure calculated in accordance with GAAP, for the periods presented (in millions):

	Fiscal Year Ended January 31,		
	2022	2021	2020
Net cash provided by (used in) operating activities	$ 110.2	$ (45.4)	$ (176.6)
Less: purchases of property and equipment	(16.2)	(35.0)	(18.6)
Less: capitalized internal-use software development costs	(12.8)	(5.3)	(4.3)
Free cash flow (non-GAAP)[(1)]	$ 81.2	$ (85.7)	$ (199.4)

(1) Free cash flow for the fiscal years ended January 31, 2022, 2021, and 2020 included the effect of $68.6 million, $14.1 million, and $0.2 million, respectively, in the net cash paid on payroll tax-related items on employee stock transactions.

Historically, we have received a higher volume of orders from new and existing customers in the fourth fiscal quarter of each year. As a result, we have historically seen higher collections and consequently higher free cash flow in the first and fourth fiscal quarters of each year.

Impact of COVID-19

The ongoing COVID-19 pandemic has caused general business disruption worldwide beginning in January 2020. The full extent to which the COVID-19 pandemic, including any new variants, may continue to directly or indirectly impact our business, results of operations, cash flows, and financial condition will depend on future developments that are highly uncertain and cannot be accurately predicted. Although our results of operations, cash flows, and financial condition were not materially adversely impacted in the fiscal year ended January 31, 2022, we have experienced, and may continue to experience, an adverse impact on certain parts of our business as a result of governmental restrictions and other measures to mitigate the spread of COVID-19, including a lengthening of the sales cycle for some prospective customers and delays in the delivery of professional services and trainings to our customers. We have also experienced, and may continue to experience, a modest positive impact on other aspects of our business, including a continued decrease in certain operating expenses due to the virtualization or cancellation of customer, partner, and employee events. While these modest impacts had a short-term benefit to our results of operations for the fiscal year ended January 31, 2022, we do not yet have visibility into the full impact this will have on our business. We cannot predict how long we will continue to experience these impacts as regulations and other measures are expected to change over time, and the availability, efficacy, and acceptance of vaccines or other preventative measures remains unclear. However, if our customers or partners experience downturns or uncertainty in their own business operations or revenue resulting from the spread or resurgence of COVID-19, they may decrease or delay their spending, request pricing discounts, or seek renegotiations of their contracts, any of which may result in decreased revenue and cash receipts for us in future periods. In addition, we may experience customer losses, including due to bankruptcy or our customers ceasing operations, which may result in an inability to collect accounts receivable from these customers.

In addition, in response to the spread of COVID-19, we required virtually all of our employees to work remotely to minimize the risk of the virus to our employees and the communities in which we operate, and we may take further actions as may be required by government authorities or that we determine are in the best interests of our employees, customers, and business partners. Although we have recently opened most of our offices for voluntary use and we expect many of our employees to return to physical offices in the future, the nature and extent of that return is uncertain. As our offices reopen, we expect to incur incremental expenses as we resume onsite services and related in-office costs. Given the uncertainty regarding the length, severity, and ability to combat the COVID-19 pandemic, we cannot reasonably estimate the long-term impact on our future results of operations, cash flows, or financial condition. For additional details, see the section titled “Risk Factors.”

Components of Results of Operations

Revenue

We deliver our platform over the internet as a service. Customers choose to consume our platform under either capacity arrangements, in which they commit to a certain amount of consumption at specified prices, or under on-demand arrangements, in which we charge for use of our platform monthly in arrears. Under capacity arrangements, from which a majority of our revenue is derived, we typically bill our customers annually in advance of their consumption. However, in future periods, we expect to see an increase in capacity contracts providing for quarterly upfront billings and monthly in arrears billings as our customers increasingly want to align consumption and timing of payments. Revenue from on-demand arrangements typically relates to initial consumption as part of customer onboarding and, to a lesser extent, overage consumption beyond a customer's contracted usage amount or following the expiration of a customer's contract. Revenue from on-demand arrangements represented 3%, 4%, and 4% of the Company's revenue for the fiscal years ended January 31, 2022, 2021, and 2020, respectively.

We recognize revenue as customers consume compute, storage, and data transfer resources under either of these arrangements. In limited instances, customers pay an annual deployment fee to gain access to a dedicated instance of a virtual private deployment. We recognize the deployment fee ratably over the contract term. Such deployment revenue represented approximately 1% of our revenue for all periods presented.

Our customer contracts for capacity typically have a term of one to four years. The weighted-average term of capacity contracts entered into during the fiscal year ended January 31, 2022 is 2.4 years. To the extent our customers enter into such contracts and either consume our platform in excess of their capacity commitments or continue to use our platform after expiration of the contract term, they are charged for their incremental consumption. In many cases, our customer contracts permit customers to roll over any unused capacity to a subsequent order, generally upon the purchase of additional capacity. For those customers who do not have a capacity arrangement, our on-demand arrangements generally have a monthly stated contract term and can be terminated at any time by either the customer or us.

We generate the substantial majority of our revenue from fees charged to our customers based on the storage, compute, and data transfer resources consumed on our platform as a single, integrated offering. We do not make any one of these resources available for consumption without the others. Instead, each of compute, storage, and data transfer work together to drive consumption on our platform. For storage resources, consumption for a given customer is based on the average terabytes per month of all of such customer's data stored in our platform. For compute resources, consumption is based on the type of compute resource used and the duration of use or, for some features, the volume of data processed. For data transfer resources, consumption is based on terabytes of data transferred, the public cloud provider used, and the region to and from which the transfer is executed.

Because customers have flexibility in their consumption, and we generally recognize revenue on consumption and not ratably over the term of the contract, we do not have the visibility into the timing of revenue recognition from any particular customer contract that typical subscription-based software companies may have. As our customer base grows, we expect our ability to forecast customer consumption in the aggregate to improve. However, in any given period, there is a risk that customers will consume our platform more slowly than we expect, which may cause fluctuations in our revenue and results of operations. In addition, new software releases or hardware improvements, like better storage compression and cloud infrastructure processor improvements, may make our platform more efficient, enabling customers to consume fewer compute, storage, and data transfer resources to accomplish the same workloads. To the extent these improvements do not result in an offsetting increase in new workloads, we may experience lower revenue.

Our revenue also includes professional services and other revenue, which consists primarily of consulting, on-site technical solution services, and training related to our platform. Our professional services revenue is recognized over time based on input measures, including time and materials costs incurred relative to total costs, with consideration given to output measures, such as contract deliverables, when applicable. Other revenue consists primarily of fees from customer training delivered on-site or through publicly available classes.

Allocation of Overhead Costs

Overhead costs that are not substantially dedicated for use by a specific functional group are allocated based on headcount. Such costs include costs associated with office facilities, depreciation of property and equipment, and information technology (IT) related personnel and other expenses, such as software and subscription services.

Cost of Revenue

Cost of revenue consists of cost of product revenue and cost of professional services and other revenue. Cost of revenue also includes allocated overhead costs.

Cost of product revenue. Cost of product revenue consists primarily of (i) third-party cloud infrastructure expenses incurred in connection with our customers' use of our platform and the deployment and maintenance of our platform on public clouds, including different regional deployments, and (ii) personnel-related costs associated with customer support and maintaining service availability and security of our platform, including salaries, benefits, bonuses, and stock-based compensation. We periodically receive credits from third-party cloud providers that are recorded as a reduction to the third-party cloud infrastructure expenses. Cost of product revenue also includes amortization of internal-use software development costs, amortization of acquired developed technology intangible assets, and expenses associated with software and subscription services dedicated for use by our customer support team and our engineering team responsible for maintaining our platform.

Cost of professional services and other revenue. Cost of professional services and other revenue consists primarily of personnel-related costs associated with our professional services and training departments, including salaries, benefits, bonuses, and stock-based compensation, and costs of contracted third-party partners and software tools.

We intend to continue to invest additional resources in our platform infrastructure and our customer support and professional services organizations to support the growth of our business. Some of these investments, including certain support costs and costs of expanding our business internationally, are incurred in advance of generating revenue, and either the failure to generate anticipated revenue or fluctuations in the timing of revenue could affect our gross margin from period to period.

Operating Expenses

Our operating expenses consist of sales and marketing, research and development, and general and administrative expenses. Personnel costs are the most significant component of operating expenses and consist of salaries, benefits, bonuses, stock-based compensation, and sales commissions. Operating expenses also include allocated overhead costs.

Sales and Marketing

Sales and marketing expenses consist primarily of personnel-related expenses associated with our sales and marketing staff, including salaries, benefits, bonuses, and stock-based compensation. Sales and marketing expenses also include sales commissions and draws paid to our sales force and certain referral fees paid to third parties, including amortization of deferred commissions. A portion of the sales commissions paid to the sales force is earned based on the rate of the customers' consumption of our platform, and a portion of the commissions paid to the sales force is earned upon the origination of the customer contracts. Sales commissions tied to customers' consumption are expensed in the same period as they are earned. Sales commissions and referral fees earned upon the origination of the new customer or customer expansion contracts are deferred and then amortized over a period of benefit that we determined to be five years. Prior to the fiscal year ended January 31, 2021, we primarily amortized sales commissions over a period of benefit that we determined to be five years as they were earned on new customer or expansion of existing customer contracts. Sales and marketing expenses also include advertising costs and other expenses associated with our marketing and business development programs, including Summit, our user conference, offset by proceeds from such conferences and programs. In addition, sales and marketing expenses are comprised of travel-related expenses, software and subscription services dedicated for use by our sales and marketing organizations, and outside services contracted for sales and marketing purposes. We expect that our sales and marketing expenses will increase in absolute dollars and continue to be our largest operating expense for the foreseeable future as we grow our business. However, we expect that our sales and marketing expenses will decrease as a percentage of our revenue over time.

Research and Development

Research and development expenses consist primarily of personnel-related expenses associated with our research and development staff, including salaries, benefits, bonuses, and stock-based compensation. Research and development expenses also include contractor or professional services fees, third-party cloud infrastructure expenses incurred in developing our platform, and expenses associated with computer equipment, software and subscription services dedicated for use by our research and development organization. We expect that our research and development expenses will increase in absolute dollars as our business grows, particularly as we incur additional costs related to continued investments in our platform. However, we expect that our research and development expenses will decrease as a percentage of our revenue over time. In addition, research and development expenses that qualify as internal-use software development costs are capitalized, the amount of which may fluctuate significantly from period to period.

General and Administrative

General and administrative expenses consist primarily of personnel-related expenses for our finance, legal, human resources, facilities, and administrative personnel, including salaries, benefits, bonuses, and stock-based compensation. General and administrative expenses also include external legal, accounting, and other professional services fees, software and subscription services dedicated for use by our general and administrative functions, insurance and other corporate expenses.

As a result of our IPO, we have incurred and expect to continue to incur additional expenses to operate as a public company, including costs to comply with the rules and regulations applicable to companies listed on a national securities exchange, costs related to compliance and reporting obligations, and increased expenses for insurance, investor relations, and professional services. We expect that our general and administrative expenses will increase in absolute dollars as our business grows but will decrease as a percentage of our revenue over time.

Interest Income

Interest income consists primarily of interest income earned on our cash equivalents and short-term and long-term investments, including amortization of premiums and accretion of discounts related to our available-for-sale marketable securities, net of associated fees.

Other Income (Expense), Net

Other income (expense), net consists primarily of (i) unrealized gains (losses) on our strategic investments in equity securities, and (ii) the effect of exchange rates on our foreign currency-denominated asset and liability balances.

Provision for (Benefit from) Income Taxes

Provision for (benefit from) income taxes consists primarily of income taxes in certain foreign and U.S. state jurisdictions in which we conduct business. We maintain a full valuation allowance against our U.S. and U.K. deferred tax assets because we have concluded that it is more likely than not that the deferred tax assets will not be realized.

Results of Operations

The following table sets forth our consolidated statements of operations data for the periods indicated (in thousands):

	Fiscal Year Ended January 31,		
	2022	2021	2020
Revenue	$ 1,219,327	$ 592,049	$ 264,748
Cost of revenue[1]	458,433	242,588	116,557
Gross profit	760,894	349,461	148,191
Operating expenses[1]:			
Sales and marketing	743,965	479,317	293,577
Research and development	466,932	237,946	105,160
General and administrative	265,033	176,135	107,542
Total operating expenses	1,475,930	893,398	506,279
Operating loss	(715,036)	(543,937)	(358,088)
Interest income	9,129	7,507	11,551
Other income (expense), net	28,947	(610)	(1,005)
Loss before income taxes	(676,960)	(537,040)	(347,542)
Provision for income taxes	2,988	2,062	993
Net loss	$ (679,948)	$ (539,102)	$ (348,535)

(1) Includes stock-based compensation as follows (in thousands):

	Fiscal Year Ended January 31,		
	2022	2021	2020
Cost of revenue	$ 87,336	$ 33,642	$ 3,650
Sales and marketing	185,970	97,879	20,757
Research and development	232,867	99,223	15,743
General and administrative	98,922	70,697	38,249
Total stock-based compensation	$ 605,095	$ 301,441	$ 78,399

The increase in stock-based compensation for the fiscal year ended January 31, 2022, compared to the fiscal year ended January 31, 2021, was primarily due to additional RSUs granted to current and new employees and an increased weighted-average grant-date fair value of RSUs granted after our IPO. As of January 31, 2022, total compensation cost related to unvested stock-based awards not yet recognized was $1.4 billion, which will be recognized over a weighted-average period of 3.0 years. See Note 11, "Equity," to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for further details.

The following table sets forth our consolidated statements of operations data expressed as a percentage of revenue for the periods indicated:

	Fiscal Year Ended January 31,		
	2022	2021	2020
Revenue	100 %	100 %	100 %
Cost of revenue[(1)]	38	41	44
Gross profit	62	59	56
Operating expenses[(1)]:			
Sales and marketing	61	81	111
Research and development	38	40	40
General and administrative	22	30	41
Total operating expenses	121	151	192
Operating loss	(59)	(92)	(136)
Interest income	1	1	4
Other income (expense), net	2	—	—
Loss before income taxes	(56)	(91)	(132)
Provision for income taxes	—	—	—
Net loss	(56%)	(91%)	(132%)

(1) Stock-based compensation included in the table above as a percentage of revenue as follows:

	Fiscal Year Ended January 31,		
	2022	2021	2020
Cost of revenue	7 %	6 %	1 %
Sales and marketing	15	17	8
Research and development	19	17	6
General and administrative	9	11	15
Total stock-based compensation	50 %	51 %	30 %

Comparison of the Fiscal Years Ended January 31, 2022 and 2021

Revenue

	Fiscal Year Ended January 31, 2022	Fiscal Year Ended January 31, 2021	% Change
	(dollars in thousands)		
Revenue:			
Product	$ 1,140,469	$ 553,794	106%
Professional services and other	78,858	38,255	106%
Total	$ 1,219,327	$ 592,049	106%
Percentage of revenue:			
Product	94%	94%	
Professional services and other	6%	6%	
Total	100%	100%	

Product revenue increased $586.7 million for the fiscal year ended January 31, 2022, compared to the prior fiscal year, primarily due to increased consumption of our platform by existing customers, as evidenced by our net revenue retention rate of 178% as of January 31, 2022. The increase in product revenue was also driven by an increase in capacity sales prices of approximately 4% for the fiscal year ended January 31, 2022, compared to the prior fiscal year, primarily due to increased sales of higher-priced editions of our platform. We had 184 customers with product revenue of greater than $1 million for the trailing 12 months ended January 31, 2022, an increase from 77 customers as of January 31, 2021. Such customers represented approximately 56% and 47% of our product revenue for the trailing 12 months ended January 31, 2022 and 2021, respectively. Within these customers, we had 30 and 9 customers with product revenue of greater than $5 million and $10 million, respectively, for the trailing 12 months ended January 31, 2022.

Approximately 93% and 89% of our revenue was derived from existing customers under capacity arrangements for the fiscal years ended January 31, 2022 and 2021, respectively. Revenue derived from new customers under capacity arrangements represented approximately 4% and 7% of our revenue for the fiscal years ended January 31, 2022 and 2021, respectively. The remainder was driven by on-demand arrangements. As described in the section titled “Impact of COVID-19,” we have experienced impacts from the ongoing COVID-19 pandemic, including the elongation of sales cycles, that may impact new customer acquisition, the timing of future revenue recognition, and our future growth rates. We continue to carefully monitor the impact of COVID-19 on product revenue, customer acquisitions, and net revenue retention rates.

Professional services and other revenue increased $40.6 million for the fiscal year ended January 31, 2022. compared to the prior fiscal year, as we expanded our professional services organization to help our customers further realize the benefits of our platform.

Cost of Revenue, Gross Profit (Loss), and Gross Margin

	Fiscal Year Ended January 31,		
	2022	2021	% Change
	(dollars in thousands)		
Cost of revenue:			
Product	$ 347,817	$ 193,835	79%
Professional services and other	110,616	48,753	127%
Total cost of revenue	$ 458,433	$ 242,588	89%
Gross profit (loss):			
Product	$ 792,652	$ 359,959	120%
Professional services and other	(31,758)	(10,498)	203%
Total gross profit	$ 760,894	$ 349,461	118%
Gross margin:			
Product	70 %	65%	
Professional services and other	(40 %)	(27%)	
Total gross margin	62 %	59%	
Headcount (at period end)			
Product	243	154	
Professional services and other	348	185	
Total headcount	591	339	

Cost of product revenue increased $154.0 million for the fiscal year ended January 31, 2022, compared to the prior fiscal year, primarily due to an increase of $99.3 million in third-party cloud infrastructure expenses as a result of increased customer consumption. Personnel-related costs and allocated overhead costs also increased $49.7 million for the fiscal year ended January 31, 2022, compared to the prior fiscal year, as a result of increased headcount and overall costs to support the growth in our business, and increased stock-based compensation related to additional RSUs granted after our IPO.

Our product gross margin was 70% for the fiscal year ended January 31, 2022, compared to 65% for the prior fiscal year, primarily due to (i) higher volume-based discounts for our purchases of third-party cloud infrastructure, (ii) an increased percentage of revenue from consumption of computing resources due to better storage compression, (iii) an increased percentage of revenue from consumption of higher-priced editions of our platform, and (iv) increased scale across our cloud infrastructure regions, partially offset by the increase in stock-based compensation. While we expect our product gross margin to remain relatively flat for the fiscal year ending January 31, 2023, a number of factors could hinder any improvement in our product gross margin, including (i) fluctuations in the mix and timing of customers' consumption, which is inherently variable at our customers' discretion, (ii) whether or not a customer contracts with us through our marketplace listings, (iii) our discounting practices, including as a result of changes to the competitive environment, and (iv) the extent of our investments in our operations, including performance improvements that may make our platform or the underlying cloud infrastructure more efficient.

Cost of professional services and other revenue increased $61.9 million for the fiscal year ended January 31, 2022, compared to the prior fiscal year, primarily due to an increase of $59.3 million in personnel-related costs and allocated overhead costs, as a result of increased headcount and overall costs to support the growth in our business, and increased stock-based compensation primarily related to additional RSUs granted after our IPO.

Professional services and other gross margins declined significantly for the fiscal year ended January 31, 2022, compared to the prior fiscal year, primarily due to the increase in stock-based compensation. We do not believe the year-over-year changes in professional services and other gross margins are meaningful given that we are continuing to scale our professional services organization and our professional services and other revenue represents a small percentage of our revenue.

Sales and Marketing

	Fiscal Year Ended January 31,		
	2022	**2021**	**% Change**
	(dollars in thousands)		
Sales and marketing	$ 743,965	$ 479,317	55%
Percentage of revenue	61 %	81 %	
Headcount (at period end)	1,891	1,257	

Sales and marketing expenses increased $264.6 million for the fiscal year ended January 31, 2022, compared to the prior fiscal year, primarily due to an increase of $208.7 million in personnel-related costs (excluding commission expenses) and allocated overhead costs, as a result of increased headcount and overall costs to support the growth in our business, and increased stock-based compensation primarily related to additional RSUs granted after our IPO. Expenses associated with sales commissions and draws paid to our sales force and certain referral fees paid to third parties, including amortization of deferred commissions, increased $34.3 million for the fiscal year ended January 31, 2022, compared to the prior fiscal year, primarily due to increases in customers' consumption of our platform and in bookings.

The remaining increase in sales and marketing expenses was driven by an increase of $16.6 million in advertising costs and other expenses associated with our marketing programs and an increase of $6.0 million in software and subscription services for the fiscal year ended January 31, 2022 compared to the prior fiscal year.

Research and Development

	Fiscal Year Ended January 31,		
	2022	2021	% Change
	(dollars in thousands)		
Research and development	$ 466,932	$ 237,946	96%
Percentage of revenue	38 %	40 %	
Headcount (at period end)	788	478	

Research and development expenses increased $229.0 million for the fiscal year ended January 31, 2022, compared to the prior fiscal year, primarily due to an increase of $202.9 million in personnel-related costs and allocated overhead costs, as a result of increased headcount and overall costs to support the growth in our business, and increased stock-based compensation primarily related to additional RSUs granted after our IPO, partially offset by increased capitalized internal-use software development costs. The remaining increase in research and development expenses was primarily driven by an increase of $16.7 million in third-party cloud infrastructure expenses incurred in developing our platform.

General and Administrative

	Fiscal Year Ended January 31,		% Change
	2022	2021	
	(dollars in thousands)		
General and administrative	$ 265,033	$ 176,135	50%
Percentage of revenue	22 %	30 %	
Headcount (at period end)	722	421	

General and administrative expenses increased $88.9 million for the fiscal year ended January 31, 2022, compared to the prior fiscal year, primarily due to an increase of $75.0 million in personnel-related costs and allocated overhead costs as a result of increased headcount and overall costs to support the growth in our business, and increased stock-based compensation primarily related to additional RSUs granted after our IPO. The remaining increase in general and administrative expenses was attributable to increased insurance expenses and other corporate expenses to support the normal course of operating as a public company and our continued growth.

Other Income (Expense), Net

	Fiscal Year Ended January 31,		% Change
	2022	2021	
	(dollars in thousands)		
Net unrealized gains on strategic investments in equity securities	$ 27,621	$ —	NM
Other	1,326	(610)	(317%)
Other income (expense), net	$ 28,947	$ (610)	NM

NM - Not meaningful.

Other income (expense), net increased $29.6 million for the fiscal year ended January 31, 2022, compared to the prior fiscal year, primarily due to net unrealized gains on our strategic investments in equity securities recorded during the fiscal year ended January 31, 2022.

Provision for Income Taxes

	Fiscal Year Ended January 31,		
	2022	2021	% Change
	(dollars in thousands)		
Loss before income taxes	$ (676,960)	$ (537,040)	26 %
Provision for income taxes	2,988	2,062	45 %
Effective tax rate	(0.4%)	(0.4%)	

We maintain a full valuation allowance on our U.S. and U.K. deferred tax assets, and the significant components of our recorded tax expense are current cash taxes in various jurisdictions. The cash tax expenses are impacted by each jurisdiction’s individual tax rates, laws on the timing of recognition of income and deductions, and availability of net operating losses and tax credits. Our effective tax rate might fluctuate significantly and could be adversely affected to the extent earnings are lower than forecasted in countries that have lower statutory rates and higher than forecasted in countries that have higher statutory rates.

Liquidity and Capital Resources

Since inception, we have financed operations primarily through proceeds received from sales of equity securities and payments received from our customers as further detailed below.

Our IPO resulted in aggregate net proceeds of $3.7 billion, after underwriting discounts of $121.7 million. We also received aggregate proceeds of $500.0 million related to certain concurrent private placements, and did not pay any underwriting discounts or commissions with respect to the shares that were sold in these private placements.

As of January 31, 2022, our principal sources of liquidity were cash, cash equivalents, and short-term and long-term investments totaling $5.1 billion. Our investments primarily consist of corporate notes and bonds, commercial paper, money market funds, U.S. government and agency securities, and certificates of deposit.

As of January 31, 2022, our RPO was $2.6 billion. Our RPO represents the amount of contracted future revenue that has not yet been recognized, including (i) deferred revenue, and (ii) non-cancelable contracted amounts that will be invoiced and recognized as revenue in future periods, which are not recorded on the balance sheet. Portions of RPO that are not yet invoiced and are denominated in foreign currencies are revalued into USD each period based on the applicable period-end exchange rates.

Our primary uses of cash include personnel-related expenses, sales and marketing expenses, third-party cloud infrastructure expenses, overhead costs and capital expenditures. As of January 31, 2022, our material cash requirements from known contractual obligations and commitments relate primarily to (i) third-party cloud infrastructure agreements, (ii) operating leases for office facilities, and (iii) subscription arrangements used to facilitate our operations at the enterprise level. These agreements are enforceable and legally binding and specify all significant terms, including fixed or minimum services to be used, fixed, minimum or variable price provisions, and the approximate timing of the actions under the contracts. For more information regarding our contractual obligations and commitments as of January 31, 2022, see Note 9, "Commitments and Contingencies," to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K. Our long-term purchase commitments may be satisfied earlier than the payment periods presented as we continue to grow and scale our business.

In the three months ending April 30, 2022, we began funding withholding taxes in certain jurisdictions due on the vesting of employee RSUs by net share settlement, rather than our previous approach of selling shares of our common stock to cover taxes upon vesting of such awards. In future periods, this change in withholding method is expected to reduce (i) net cash provided by financing activities and (ii) our shares outstanding used to calculate net income (loss) per share. The amount of withholding taxes related to net share settlement of employee RSUs is approximately $54 million for the three months ending April 30, 2022.

In March 2022, we entered into an agreement to acquire all outstanding capital stock of Streamlit, Inc., a privately-held company which provides a framework built to simplify and accelerate the creation of data applications, for approximately $800 million (Deal Consideration), net of acquired cash and cash equivalents and subject to customary purchase price adjustments. Upon completion of the acquisition, which is subject to customary closing conditions and expected to occur in the three months ending April 30, 2022, the Deal Consideration will be paid in a combination of cash and unregistered shares of our common stock.

We believe that our existing cash, cash equivalents, and short-term and long-term investments will be sufficient to support our working capital and capital expenditure requirements for at least the next 12 months. For the period beyond the next 12 months, we believe we will be able to meet our working capital and capital expenditure needs from our existing cash, cash equivalents, and short-term and long-term investments and cash flows from our operating activities. Our future capital requirements will depend on many factors, including our revenue growth rate, expenditures related to our headcount growth, the timing and the amount of cash received from customers, the expansion of sales and marketing activities, the timing and extent of spending to support development efforts, the price at which we are able to purchase public cloud capacity, expenses associated with our international expansion, the introduction of platform enhancements, and the continuing market adoption of our platform. We may continue to enter into arrangements to acquire or invest in complementary businesses, products, and technologies. We may, as a result of those arrangements or the general expansion of our business, be required to seek additional equity or debt financing. In the event that we require additional financing, we may not be able to raise such financing on terms acceptable to us or at all. If we are unable to raise additional capital or generate cash flows necessary to expand our operations and invest in continued innovation, we may not be able to compete successfully, which would harm our business, results of operations, and financial condition.

The following table shows a summary of our cash flows for the periods presented (in thousands):

	Fiscal Year Ended January 31,		
	2022	**2021**	**2020**
Net cash provided by (used in) operating activities	$ 110,179	$ (45,417)	$ (176,558)
Net cash provided by (used in) investing activities	$ (20,800)	$ (4,036,645)	$ 138,495
Net cash provided by financing activities	$ 178,198	$ 4,775,290	$ 57,469

Operating Activities

Net cash provided by operating activities mainly consists of our net loss adjusted for certain non-cash items, primarily consisting of (i) stock-based compensation, net of amounts capitalized, (ii) net amortization (accretion) of premiums (discounts) on investments, (iii) amortization of deferred commissions, (iv) amortization of operating lease right-of-use assets, (v) net unrealized gains on strategic investments in equity securities, and (vi) depreciation of property and equipment and amortization of acquired intangible assets, and changes in operating assets and liabilities during each period.

For the fiscal year ended January 31, 2022, net cash provided by operating activities was $110.2 million, primarily consisting of our net loss of $679.9 million, adjusted for non-cash charges of $721.7 million, and net cash inflows of $68.4 million provided by changes in our operating assets and liabilities. The main drivers of the changes in operating assets and liabilities during the fiscal year ended January 31, 2022 were (i) a $526.2 million increase in deferred revenue due to invoicing for prepaid capacity agreements outpacing revenue recognition, and (ii) a $79.8 million increase in accrued expenses and other liabilities primarily due to increased headcount and growth in our business, partially offset by (a) a $251.7 million increase in accounts receivable primarily due to growth in our business, (b) a $159.2 million increase in prepaid expenses and other assets primarily driven by increased prepaid third-party cloud infrastructure expenses, (c) a $95.9 million increase in deferred commissions earned on bookings, and (d) a $38.2 million decrease in operating lease liabilities due to payments related to our operating lease obligations.

For the fiscal year ended January 31, 2021, net cash used in operating activities was $45.4 million, primarily consisting of our net loss of $539.1 million, adjusted for non-cash charges of $386.8 million, and net cash inflows of $106.9 million provided by changes in our operating assets and liabilities, net of the effect of a business combination.

Net cash provided by operating activities was $110.2 million for the fiscal year ended January 31, 2022, compared to the net cash used in operating activities of $45.4 million for the fiscal year ended January 31, 2021, primarily due to an increase of $724.4 million in cash collected from customers resulting from increased sales. This was partially offset by increased expenditures due to an increase in headcount and growth in our business. We expect to continue to generate positive net cash flows from operating activities for the fiscal year ending January 31, 2023.

Investing Activities

Net cash used in investing activities for the fiscal year ended January 31, 2022 was $20.8 million, primarily as a result of purchases of investments, purchases of intangible assets, purchases of property and equipment to support our office facilities, and capitalized internal-use software development costs, partially offset by proceeds from the sales, maturities and redemptions of investments.

Net cash used in investing activities for the fiscal year ended January 31, 2021 was $4.0 billion, primarily as a result of net purchases of investments, and to a lesser extent, purchases of property and equipment to support existing and additional office facilities, purchases of intangible assets, cash paid for a business combination, and capitalized internal-use software development costs.

Financing Activities

Net cash provided by financing activities for the fiscal year ended January 31, 2022 was $178.2 million, primarily as a result of proceeds from the issuance of equity securities under our equity incentive plans.

Net cash provided by financing activities for the fiscal year ended January 31, 2021 was $4.8 billion, primarily as a result of $4.2 billion of aggregate net proceeds from our IPO and the concurrent private placements completed in September 2020, net of underwriting discounts, as well as $532.1 million in proceeds from the issuance of equity securities.

Critical Accounting Estimates

Our management's discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which are prepared in accordance with GAAP. The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses, and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. By their nature, these estimates and assumptions are subject to an inherent degree of uncertainty and actual results could differ significantly from the estimates made by management. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations, and cash flows will be affected.

The significant accounting policies and methods used in the preparation of our consolidated financial statements are discussed in Note 2, "Basis of Presentation and Summary of Significant Accounting Policies," to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K. We believe that the accounting policy and estimate described below involves a substantial degree of judgment and complexity and therefore is the most critical to aid in fully understanding and evaluating our financial condition and results of operations.

Revenue Recognition

See Note 2, "Basis of Presentation and Summary of Significant Accounting Policies," to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for information regarding our significant accounting policies over revenue recognition.

Many of our contracts with customers include multiple performance obligations. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation on a relative standalone selling price (SSP) basis. We consider our evaluation of SSP to be a critical accounting estimate. An observable SSP is established based on the price at which a service is sold separately. If an SSP is not observable through past transactions, we estimate it by maximizing the use of observable inputs, including the overall pricing strategy, market data, internally approved pricing guidelines related to the performance obligations, and other observable inputs. As our business and offerings evolve over time, modifications to our pricing and discounting methodologies, changes in the scope and nature of our offerings, and/or changes in customer segmentation may result in a lack of consistency, making it difficult to establish and/or maintain SSP. Changes in SSP could result in different and unanticipated allocations of revenue in contracts with multiple performance obligations. These factors, among others, may adversely impact the amount of revenue and gross margin we report in a given period.

Recently Issued Accounting Pronouncements

See Note 2, “Basis of Presentation and Summary of Significant Accounting Policies," to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K for a discussion of recent accounting pronouncements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

As of January 31, 2022, we had $5.1 billion of cash, cash equivalents, and short-term and long-term investments in a variety of securities, including corporate notes and bonds, commercial paper, money market funds, U.S. government and agency securities, and certificates of deposit. In addition, we had $16.8 million of restricted cash primarily due to outstanding letters of credit established in connection with lease agreements for our facilities. Our cash, cash equivalents, and short-term and long-term investments are held for working capital purposes. We do not enter into investments for trading or speculative purposes. A hypothetical 100 basis point increase or decrease in interest rates would have resulted in a decrease of $27.3 million or an increase of $23.5 million, respectively, in the market value of our cash equivalents, and short-term and long-term investments as of January 31, 2022.

As of January 31, 2021, we had $5.1 billion of cash, cash equivalents, and short-term and long-term investments, and a hypothetical 100 basis point increase or decrease in interest rates would have resulted in a decrease of $29.2 million or an increase of $7.6 million, respectively, in the market value.

Foreign Currency Exchange Risk

Our reporting currency is the United States dollar. The functional currency of our foreign subsidiaries is the U.S. dollar or the Euro. The majority of our sales are currently denominated in U.S. dollars, although we also have sales in Euros. Therefore our revenue is not currently subject to significant foreign currency risk, but that will likely change in the future. Our operating expenses are denominated in the currencies of the countries in which our operations are located, which is primarily in the United States and to a lesser extent in Europe, Canada, and the Asia-Pacific region. Our consolidated results of operations and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to changes in foreign exchange rates. To date, we have not entered into any hedging arrangements with respect to foreign currency risk or other derivative financial instruments, although we may choose to do so in the future. We do not believe a 10% increase or decrease in the relative value of the U.S. dollar would have a material impact on our operating results for the fiscal years ended January 31, 2022, 2021, and 2020, respectively.

Other Market Risk

Our strategic investments portfolio includes investments in privately-held and publicly-traded companies. We plan to continue these types of strategic investments as part of our corporate development program. We anticipate additional volatility to our consolidated statements of operations as a result of changes in market prices, changes resulting from observable transactions for the same or similar investments of the same issuer, and impairments to our strategic investments. As of January 31, 2022 and 2021, the carrying amount of these investments was $207.8 million and $41.5 million, respectively.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Snowflake Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Snowflake Inc. and its subsidiaries (the "Company") as of January 31, 2022 and 2021, and the related consolidated statements of operations, of comprehensive loss, of redeemable convertible preferred stock and stockholders' equity (deficit) and of cash flows for each of the three years in the period ended January 31, 2022, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of January 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of January 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended January 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of January 31, 2022, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition - Capacity Arrangements

As described in Note 2 to the consolidated financial statements, the Company delivers its platform over the internet as a service. The Company's customers consume the platform typically under capacity arrangements, in which customers commit to a certain amount of consumption at specified prices. Management recognizes revenue as customers consume compute, storage, and data transfer resources. The Company's total revenue for the year ended January 31, 2022 was $1.2 billion, of which a significant portion is recognized under capacity arrangements.

The principal considerations for our determination that performing procedures relating to revenue recognition - capacity arrangements is a critical audit matter are the significant audit effort in performing procedures and evaluating audit evidence related to revenue recognized under capacity arrangements.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process, including controls over revenue transactions recognized under capacity arrangements. These procedures also included, among others, evaluating, on a test basis, revenue recognized under capacity arrangements by obtaining and inspecting invoices, customer order forms, cash receipts from customers, usage confirmations from customers, and usage records.

/s/ PricewaterhouseCoopers LLP
San Jose, California
March 30, 2022

We have served as the Company’s auditor since 2019.

SNOWFLAKE INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)

	January 31, 2022	January 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 1,085,729	$ 820,177
Short-term investments	2,766,364	3,087,887
Accounts receivable, net	545,629	294,017
Deferred commissions, current	51,398	32,371
Prepaid expenses and other current assets	149,523	66,200
Total current assets	4,598,643	4,300,652
Long-term investments	1,256,207	1,165,275
Property and equipment, net	105,079	68,968
Operating lease right-of-use assets	190,356	186,818
Goodwill	8,449	8,449
Intangible assets, net	37,141	16,091
Deferred commissions, non-current	124,517	86,164
Other assets	329,306	89,322
Total assets	$ 6,649,698	$ 5,921,739
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 13,441	$ 5,647
Accrued expenses and other current liabilities	200,664	125,315
Operating lease liabilities, current	25,101	19,650
Deferred revenue, current	1,157,887	638,652
Total current liabilities	1,397,093	789,264
Operating lease liabilities, non-current	181,196	184,887
Deferred revenue, non-current	11,180	4,194
Other liabilities	11,184	6,923
Total liabilities	1,600,653	985,268
Commitments and contingencies (Note 9)		
Stockholders' equity:		
Preferred stock; $0.0001 par value per share; 200,000,000 shares authorized as of January 31, 2022 and 2021; zero shares issued and outstanding as of January 31, 2022 and 2021	—	—
Class A common stock; $0.0001 par value per share; 2,500,000,000 shares authorized as of January 31, 2022 and 2021; 312,376,783 and 111,374,416 shares issued and outstanding as of January 31, 2022 and 2021, respectively(1)	31	11
Class B common stock; $0.0001 par value per share; 185,461,432 and 355,000,000 shares authorized as of January 31, 2022 and 2021, respectively; zero and 176,543,188 shares issued and outstanding as of January 31, 2022 and 2021, respectively(1)	—	17
Additional paid-in capital	6,984,669	6,175,425
Accumulated other comprehensive income (loss)	(16,286)	439
Accumulated deficit	(1,919,369)	(1,239,421)
Total stockholders' equity	5,049,045	4,936,471
Total liabilities and stockholders' equity	$ 6,649,698	$ 5,921,739

(1) On March 1, 2021, all shares of the Company's then-outstanding Class B common stock were automatically converted into the same number of shares of Class A common stock, pursuant to the terms of the Company's amended and restated certificate of incorporation. No additional shares of Class B common stock will be issued following such conversion. See Note 11 for further details.

See accompanying notes to consolidated financial statements.

SNOWFLAKE INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except share and per share data)

	Fiscal Year Ended January 31,		
	2022	**2021**	**2020**
Revenue	$ 1,219,327	$ 592,049	$ 264,748
Cost of revenue	458,433	242,588	116,557
Gross profit	760,894	349,461	148,191
Operating expenses:			
Sales and marketing	743,965	479,317	293,577
Research and development	466,932	237,946	105,160
General and administrative	265,033	176,135	107,542
Total operating expenses	1,475,930	893,398	506,279
Operating loss	(715,036)	(543,937)	(358,088)
Interest income	9,129	7,507	11,551
Other income (expense), net	28,947	(610)	(1,005)
Loss before income taxes	(676,960)	(537,040)	(347,542)
Provision for income taxes	2,988	2,062	993
Net loss	$ (679,948)	$ (539,102)	$ (348,535)
Net loss per share attributable to Class A and Class B common stockholders—basic and diluted[1]	$ (2.26)	$ (3.81)	$ (7.77)
Weighted-average shares used in computing net loss per share attributable to Class A and Class B common stockholders—basic and diluted[1]	300,273,227	141,613,196	44,847,442

[1] On March 1, 2021, all shares of the Company's then-outstanding Class B common stock were automatically converted into the same number of shares of Class A common stock, pursuant to the terms of the Company's amended and restated certificate of incorporation. No additional shares of Class B common stock will be issued following such conversion. See Note 11 for further details.

See accompanying notes to consolidated financial statements.

SNOWFLAKE INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(in thousands)

	Fiscal Year Ended January 31,		
	2022	2021	2020
Net loss	$ (679,948)	$ (539,102)	$ (348,535)
Other comprehensive income (loss):			
Foreign currency translation adjustments	(918)	118	—
Net change in unrealized gains or losses on available-for-sale debt securities	(15,807)	105	200
Total other comprehensive income (loss)	(16,725)	223	200
Comprehensive loss	$ (696,673)	$ (538,879)	$ (348,335)

See accompanying notes to consolidated financial statements.

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SNOWFLAKE INC.

CONSOLIDATED STATEMENTS OF REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)

(in thousands, except share and per share data)

	Redeemable Convertible Preferred Stock		Class A and Class B Common Stock[(1)]		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
BALANCE—January 31, 2019	168,309,042	$ 910,853	45,559,637	$ 5	$ 39,296	$ 16	$ (351,784)	$ (312,467)
Issuance of Series F redeemable convertible preferred stock at $14.96125 per share	1,612,230	24,121	—	—	—	—	—	—
Issuance of common stock upon exercise of stock options	—	—	9,735,006	1	27,525	—	—	27,526
Repurchases of early exercised stock options and restricted common stock	—	—	(520,557)	—	—	—	—	—
Vesting of early exercised stock options and restricted common stock	—	—	—	—	5,791	—	—	5,791
Issuance of restricted stock	—	—	16,700	—	—	—	—	—
Issuance of common stock in connection with a business combination	—	—	661,635	—	4,749	—	—	4,749
Stock-based compensation	—	1,500	—	—	77,979	—	—	77,979
Other comprehensive income	—	—	—	—	—	200	—	200
Net loss	—	—	—	—	—	—	(348,535)	(348,535)
BALANCE—January 31, 2020	169,921,272	936,474	55,452,421	6	155,340	216	(700,319)	(544,757)
Issuance of Series G-1 and Series G-2 redeemable convertible preferred stock at $38.77 per share, net of issuance costs of $230	12,349,827	478,573	—	—	—	—	—	—
Conversion of redeemable convertible preferred stock to common stock upon initial public offering	(182,271,099)	(1,415,047)	182,271,099	18	1,415,029	—	—	1,415,047
Issuance of common stock upon initial public offering and private placements, net of underwriting discounts	—	—	36,366,666	4	4,242,280	—	—	4,242,284
Issuance of common stock upon exercise of stock options	—	—	13,798,741	—	53,671	—	—	53,671
Exercise of common stock warrants	—	—	32,241	—	—	—	—	—
Repurchase of early exercised stock options	—	—	(40,000)	—	—	—	—	—
Vesting of early exercised stock options and restricted common stock	—	—	—	—	5,592	—	—	5,592
Vesting of restricted stock units	—	—	36,436	—	—	—	—	—
Stock-based compensation	—	—	—	—	303,513	—	—	303,513
Other comprehensive income	—	—	—	—	—	223	—	223
Net loss	—	—	—	—	—	—	(539,102)	(539,102)
BALANCE—January 31, 2021	—	—	287,917,604	28	6,175,425	439	(1,239,421)	4,936,471
Issuance of common stock upon exercise of stock options	—	—	20,902,509	3	126,998	—	—	127,001
Issuance of common stock under employee stock purchase plan	—	—	370,452	—	52,227	—	—	52,227
Vesting of early exercised stock options and restricted common stock	—	—	—	—	750	—	—	750
Vesting of restricted stock units	—	—	3,186,218	—	—	—	—	—
Stock-based compensation	—	—	—	—	629,269	—	—	629,269
Other comprehensive loss	—	—	—	—	—	(16,725)	—	(16,725)
Net loss	—	—	—	—	—	—	(679,948)	(679,948)
BALANCE—January 31, 2022	—	$ —	312,376,783	$ 31	$ 6,984,669	$ (16,286)	$ (1,919,369)	$ 5,049,045

(1) On March 1, 2021, all shares of the Company's then-outstanding Class B common stock were automatically converted into the same number of shares of Class A common stock, pursuant to the terms of the Company's amended and restated certificate of incorporation. No additional shares of Class B common stock will be issued following such conversion. See Note 11 for further details.

See accompanying notes to consolidated financial statements.

SNOWFLAKE INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Fiscal Year Ended January 31,		
	2022	2021	2020
Cash flows from operating activities:			
Net loss	$ (679,948)	$ (539,102)	$ (348,535)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	21,498	9,826	3,522
Non-cash operating lease costs	35,553	33,475	27,712
Amortization of deferred commissions	37,876	28,841	16,986
Stock-based compensation, net of amounts capitalized	605,095	301,441	78,399
Net amortization (accretion) of premiums (discounts) on investments	48,002	8,630	(5,459)
Net unrealized gains on strategic investments in equity securities	(27,621)	—	—
Other	1,297	4,580	1,476
Changes in operating assets and liabilities, net of effect of business combinations:			
Accounts receivable	(251,652)	(116,289)	(116,869)
Deferred commissions	(95,877)	(51,444)	(68,595)
Prepaid expenses and other assets	(159,159)	(62,349)	(10,811)
Accounts payable	7,371	(2,878)	1,116
Accrued expenses and other liabilities	79,772	58,252	34,994
Operating lease liabilities	(38,249)	(31,281)	(13,455)
Deferred revenue	526,221	312,881	222,961
Net cash provided by (used in) operating activities	110,179	(45,417)	(176,558)
Cash flows from investing activities:			
Purchases of property and equipment	(16,221)	(35,037)	(18,583)
Capitalized internal-use software development costs	(12,772)	(5,293)	(4,265)
Cash paid for business combinations, net of cash acquired	—	(6,035)	(6,314)
Purchases of intangible assets	(24,334)	(8,374)	—
Purchases of investments	(4,250,338)	(4,859,852)	(622,854)
Sales of investments	440,069	177,070	14,087
Maturities and redemptions of investments	3,842,796	700,876	776,424
Net cash provided by (used in) investing activities	(20,800)	(4,036,645)	138,495
Cash flows from financing activities:			
Proceeds from issuance of redeemable convertible preferred stock, net of issuance costs	—	478,573	24,121
Proceeds from initial public offering and private placements, net of underwriting discounts	—	4,242,284	—
Proceeds from early exercised stock options	—	159	6,213
Proceeds from exercise of stock options	127,036	53,378	27,526
Proceeds from issuance of common stock under employee stock purchase plan	52,227	—	—
Proceeds from repayments of a nonrecourse promissory note	—	2,090	—
Repurchases of early exercised stock options and restricted common stock	—	(30)	(391)
Payments of deferred purchase consideration for business combinations	(1,065)	(1,164)	—
Net cash provided by financing activities	178,198	4,775,290	57,469

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	Fiscal Year Ended January 31,		
	2022	2021	2020
Effect of exchange rate changes on cash, cash equivalents, and restricted cash	(236)	(11)	—
Net increase in cash, cash equivalents, and restricted cash	267,341	693,217	19,406
Cash, cash equivalents, and restricted cash—beginning of period	835,193	141,976	122,570
Cash, cash equivalents, and restricted cash—end of period	$ 1,102,534	$ 835,193	$ 141,976
Supplemental disclosures of cash flow information:			
Cash paid for income taxes	$ 1,482	$ 1,195	$ 1,428
Supplemental disclosures of non-cash investing and financing activities			
Property and equipment included in accounts payable and accrued expenses	$ 5,115	$ 6,941	$ 589
Stock-based compensation included in capitalized software development costs	$ 23,620	$ 2,072	$ 1,080
Vesting of early exercised stock options and restricted common stock	$ 750	$ 3,502	$ 5,791
Equity consideration in connection with a business combination	$ —	$ —	$ 4,749
Intangible assets included in accrued expenses and other liabilities	$ 4,544	$ —	$ —
Net change in unrealized gains or losses on available-for-sale debt securities	$ 15,807	$ 105	$ 200
Reconciliation of cash, cash equivalents, and restricted cash:			
Cash and cash equivalents	$ 1,085,729	$ 820,177	$ 127,206
Restricted cash—included in other assets and prepaid expenses and other current assets	16,805	15,016	14,770
Total cash, cash equivalents, and restricted cash	$ 1,102,534	$ 835,193	$ 141,976

See accompanying notes to consolidated financial statements.

SNOWFLAKE INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Description of Business

Snowflake Inc. (Snowflake or the Company) provides a cloud-based data platform, which enables customers to consolidate data to drive meaningful business insights, build data-driven applications, and share data. The Company provides its platform through a customer-centric, consumption-based business model, only charging customers for the resources they use. Through its platform, the Company delivers the Data Cloud, a network where Snowflake customers, partners, data providers, and data consumers can break down data silos and derive value from rapidly growing data sets in secure, governed, and compliant ways. Snowflake was incorporated in the state of Delaware on July 23, 2012.

2. Basis of Presentation and Summary of Significant Accounting Policies

Fiscal Year

The Company's fiscal year ends on January 31. For example, references to fiscal 2022 refer to the fiscal year ended January 31, 2022.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP).

Principles of Consolidation

The consolidated financial statements include the accounts of Snowflake Inc. and its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

Segment Information

The Company has a single operating and reportable segment. The Company's chief operating decision maker is its Chief Executive Officer, who reviews financial information presented on a consolidated basis for purposes of making operating decisions, assessing financial performance, and allocating resources. For information regarding the Company's revenue by geographic area, see Note 3.

The following table presents the Company's long-lived assets, comprising property and equipment, net and operating lease right-of-use assets, by geographic area (in thousands):

	January 31, 2022	January 31, 2021
United States	$ 272,895	$ 247,457
Other	22,540	8,329
Total	$ 295,435	$ 255,786

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Such estimates include, but are not limited to, stand-alone selling prices (SSP) for each distinct performance obligation, internal-use software development costs, the expected period of benefit for deferred commissions, the useful lives of long-lived assets, the carrying value of operating lease right-of-use assets, stock-based compensation, accounting for income taxes, and the fair value of investments in marketable and non-marketable securities.

The Company bases its estimates on historical experience and also on assumptions that management considers reasonable. The Company assesses these estimates on a regular basis; however, actual results could differ from these estimates due to risks and uncertainties, including uncertainty in the current economic environment due to the potential long-term impact and duration of the ongoing COVID-19 pandemic.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk primarily consist of cash, cash equivalents, investments in marketable securities, restricted cash, and accounts receivable. The Company maintains its cash, cash equivalents, investments in marketable securities, and restricted cash with high-quality financial institutions with investment-grade ratings. For accounts receivable, the Company is exposed to credit risk in the event of nonpayment by customers up to the amounts recorded on the consolidated balance sheets. The Company manages its accounts receivable credit risk through ongoing credit evaluation of its customers' financial conditions. The Company generally does not require collateral from its customers. For information regarding the Company's significant customers, see Note 3.

Foreign Currency

The reporting currency of the Company is the United States dollar. The functional currency of the Company's foreign subsidiaries is the U.S. dollar or the Euro, depending on the nature of the subsidiaries' activities. Monetary assets and liabilities denominated in currencies other than the functional currency are remeasured to the functional currency at period-end exchange rates. Foreign currency transaction gains and losses resulting from remeasurement are recognized in other income (expense), net in the consolidated statements of operations, and have not been material for any of the periods presented.

For those subsidiaries with non-U.S. dollar functional currencies, assets and liabilities are translated into U.S. dollars at period-end exchange rates. Revenue and expenses are translated at the average exchange rates during the period. Equity transactions are translated using historical exchange rates. The resulting translation adjustments are recorded in accumulated other comprehensive income (loss) as a component of stockholders' equity (deficit).

Revenue Recognition

The Company accounts for revenue in accordance with Accounting Standards Codification (ASC) Topic 606, *Revenue from Contracts with Customers* (ASC 606) for all periods presented.

The Company delivers its platform over the internet as a service. Customers choose to consume the platform under either capacity arrangements, in which customers commit to a certain amount of consumption at specified prices, or under on-demand arrangements, in which the Company charges for use of the platform monthly in arrears. Under capacity arrangements, from which a majority of revenue is derived, the Company typically bills its customers annually in advance of their consumption. Revenue from on-demand arrangements typically relates to initial consumption as part of customer onboarding and, to a lesser extent, overage consumption beyond a customer's contracted usage amount or following the expiration of a customer's contract. Revenue from on-demand arrangements represented 3%, 4%, and 4% of the Company's revenue for the fiscal years ended January 31, 2022, 2021, and 2020, respectively. The Company recognizes revenue as customers consume compute, storage, and data transfer resources under either of these arrangements. In limited instances, customers pay an annual deployment fee to gain access to a dedicated instance of a virtual private deployment. Deployment fees are recognized ratably over the contract term.

Customers do not have the contractual right to take possession of the Company's platform. Pricing for the platform includes embedded support services, data backup and disaster recovery services, as well as future updates, when and if available, offered during the contract term.

Customer contracts for capacity typically have a term of one to four years. To the extent customers enter into such contracts and either consume the platform in excess of their capacity commitments or continue to use the platform after expiration of the contract term, they are charged for their incremental consumption. In many cases, customer contracts permit customers to roll over any unused capacity to a subsequent order, generally on the purchase of additional capacity. Customer contracts are generally non-cancelable during the contract term, although customers can terminate for breach if the Company materially fails to perform. For those customers who do not have a capacity arrangement, the Company’s on-demand arrangements generally have a monthly stated contract term and can be terminated at any time by either the customer or the Company.

For storage resources, consumption for a given customer is based on the average terabytes per month of all of such customer's data stored in the platform. For compute resources, consumption is based on the type of compute resource used and the duration of use or, for some features, the volume of data processed. For data transfer resources, consumption is based on terabytes of data transferred, the public cloud provider used, and the region to and from which the transfer is executed.

The Company's revenue also includes professional services and other revenue, which consists primarily of consulting, on-site technical solution services, and training related to the platform. Professional services revenue is recognized over time based on input measures, including time and materials costs incurred relative to total costs, with consideration given to output measures, such as contract deliverables, when applicable. Other revenue consists primarily of fees from customer training delivered on-site or through publicly available classes.

The Company determines revenue recognition in accordance with ASC 606 through the following five steps:

1) Identify the contract with a customer. The Company considers the terms and conditions of the contracts and the Company's customary business practices in identifying its contracts under ASC 606. The Company determines it has a contract with a customer when the contract has been approved by both parties, it can identify each party's rights regarding the services to be transferred and the payment terms for the services, it has determined the customer to have the ability and intent to pay, and the contract has commercial substance. At contract inception, the Company evaluates whether two or more contracts should be combined and accounted for as a single contract and whether the combined or single contract includes more than one performance obligation. The Company applies judgment in determining the customer's ability and intent to pay, which is based on a variety of factors, including the customer's payment history or, in the case of a new customer, credit and financial information pertaining to the customer.

2) Identify the performance obligations in the contract. Performance obligations promised in a contract are identified based on the services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the service either on its own or together with other resources that are readily available from third parties or from the Company, and are distinct in the context of the contract, whereby the transfer of the services is separately identifiable from other promises in the contract. The Company treats consumption of its platform for compute, storage, and data transfer resources as one single performance obligation because they are consumed by customers as a single, integrated offering. The Company does not make any one of these resources available for consumption without the others. Instead, each of compute, storage, and data transfer work together to drive consumption on the Company's platform. The Company treats its virtual private deployments for customers, professional services, on-site technical solution services, and training each as a separate and distinct performance obligation. Some customers have negotiated an option to purchase additional capacity at a stated discount. These options generally do not provide a material right as they are priced at the Company's SSP, as described below, as the stated discounts are not incremental to the range of discounts typically given.

3) Determine the transaction price. The transaction price is determined based on the consideration the Company expects to receive in exchange for transferring services to the customer. Variable consideration is included in the transaction price if, in the Company's judgment, it is probable that a significant future reversal of cumulative revenue recognized under the contract will not occur. Variable consideration is estimated based on expected value, primarily relying on the Company's history. In certain situations, the Company may also use the most likely amount as the basis of its estimate. None of the Company's contracts contain a significant financing component. Revenue is recognized net of any taxes collected from customers, which are subsequently remitted to governmental entities (e.g., sales and other indirect taxes).

4) Allocate the transaction price to performance obligations in the contract. If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation on a relative SSP basis. The determination of a relative SSP for each distinct performance obligation requires judgment. The Company determines SSP for performance obligations based on an observable standalone selling price when it is available, as well as other factors, including the overall pricing objectives, which take into consideration market conditions and customer-specific factors, including a review of internal discounting tables, the services being sold, the volume of capacity commitments, and other factors. The observable standalone selling price is established based on the price at which products and services are sold separately. If an SSP is not observable through past transactions, the Company estimates it using available information including, but not limited to, market data and other observable inputs.

5) Recognize revenue when or as the Company satisfies a performance obligation. Revenue is recognized at the time the related performance obligation is satisfied by transferring the promised service to a customer. Revenue is recognized when control of the services is transferred to the customers, in an amount that reflects the consideration that the Company expects to receive in exchange for those services. The Company determined an output method to be the most appropriate measure of progress because it most faithfully represents when the value of the services is simultaneously received and consumed by the customer, and control is transferred. Virtual private deployment fees are recognized ratably over the term of the deployment as the deployment service represents a stand-ready performance obligation provided throughout the deployment term.

Allocation of Overhead Costs

Overhead costs that are not substantially dedicated for use by a specific functional group are allocated based on headcount. Such costs include costs associated with office facilities, depreciation of property and equipment, and information technology (IT) related personnel and other expenses, such as software and subscription services.

Cost of Revenue

Cost of revenue consists primarily of (i) third-party cloud infrastructure expenses incurred in connection with the customers' use of the Snowflake platform and deploying and maintaining the platform on public clouds, including different regional deployments, (ii) personnel-related costs associated with the Company's customer support team, engineering team that is responsible for maintaining the Company's service availability and security of its platform, and professional services and training departments, including salaries, benefits, bonuses, and stock-based compensation, and (iii) costs of contracted third-party partners for professional services. Cost of revenue also includes amortization of internal-use software development costs, amortization of acquired developed technology intangible assets, expenses associated with software and subscription services dedicated for use by the Company's customer support team and engineering team responsible for maintaining the Company's service, and allocated overhead.

Research and Development Costs

Research and development costs are expensed as incurred, unless they qualify as internal-use software development costs. Research and development expenses consist primarily of personnel-related expenses associated with the Company's research and development staff, including salaries, benefits, bonuses, and stock-based compensation. Research and development expenses also include contractor or professional services fees, third-party cloud infrastructure expenses incurred in developing the Company's platform, expenses associated with computer equipment, software and subscription services dedicated for use by the Company's research and development organization, and allocated overhead.

Advertising Costs

Advertising costs are expensed as incurred and are included in sales and marketing expenses in the consolidated statements of operations. These costs were $57.5 million, $41.0 million, and $29.7 million for the fiscal years ended January 31, 2022, 2021, and 2020, respectively.

Income Taxes

The Company is subject to income taxes in the United States and numerous foreign jurisdictions. Significant judgment is required in determining its provision for income taxes and deferred tax assets and liabilities, including evaluating uncertainties in the application of accounting principles and complex tax laws.

The Company records a provision for income taxes for the anticipated tax consequences of the reported results of operations using the asset and liability method. Under this method, the Company recognizes deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts for financial reporting purposes and the tax bases of assets and liabilities, as well as for loss and tax credit carryforwards. The deferred assets and liabilities are measured using the statutorily enacted tax rates anticipated to be in effect when those tax assets and liabilities are expected to be realized or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the enactment date.

A valuation allowance is established if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. The Company considers all available evidence, both positive and negative, including historical levels of income, expectations and risks associated with estimates of future taxable income in assessing the need for a valuation allowance.

The Company's tax positions are subject to income tax audits by multiple tax jurisdictions throughout the world. The Company recognizes the tax benefit of an uncertain tax position only if it is more likely than not the position will be sustainable upon examination by the taxing authority, including resolution of any related appeals or litigation processes. This evaluation is based on all available evidence and assumes that the tax authorities have full knowledge of all relevant information concerning the tax position. The tax benefit recognized is measured as the largest amount of benefit which is more likely than not (greater than 50% likely) to be realized upon ultimate settlement with the taxing authority. The Company recognizes interest accrued and penalties related to unrecognized tax benefits in income tax expense. The Company makes adjustments to these reserves in accordance with the income tax guidance when facts and circumstances change, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different from the amounts recorded, such differences may affect the provision for income taxes in the period in which such determination is made and could have a material impact on the Company's financial condition and operating results.

Stock-Based Compensation

The Company measures and recognizes compensation expense for all stock-based awards, including stock options, restricted stock awards, restricted stock units (RSUs) granted to employees, directors, and non-employees, and stock purchase rights granted under the Employee Stock Purchase Plan (ESPP Rights) to employees, based on the estimated fair value of the awards on the date of grant. The fair value of each stock option granted and ESPP Rights is estimated using the Black-Scholes option-pricing model. The determination of the grant-date fair value using an option-pricing model is affected by the estimated fair value of the Company's common stock as well as assumptions regarding a number of other complex and subjective variables. These variables include expected stock price volatility over an expected term, actual and projected employee stock option exercise behaviors, the risk-free interest rate for an expected term, and expected dividends. The fair value of each RSU is based on the fair value of the Company's common stock on the date of grant.

Stock-based compensation is generally recognized on a straight-line basis over the requisite service period. For awards with both a service-based vesting condition and a performance-based vesting condition, the stock-based compensation is recognized using an accelerated attribution method from the time it is deemed probable that the vesting condition will be met through the time the service-based vesting condition has been achieved. If an award contains a provision whereby vesting is accelerated upon a change in control, the Company recognizes stock-based compensation expense on a straight-line basis, as a change in control is considered to be outside of the Company's control and is not considered probable until it occurs. Forfeitures are accounted for in the period in which they occur.

Net Loss Per Share Attributable to Class A and Class B Common Stockholders

As discussed in Note 11, on March 1, 2021, all shares of the Company's then-outstanding Class B common stock were automatically converted into the same number of shares of Class A common stock pursuant to the terms of the Company's amended and restated certificate of incorporation.

Basic and diluted net loss per share attributable to common stockholders is computed in conformity with the two-class method required for participating securities. The Company considered unvested common stock and, prior to the automatic conversion of all of its outstanding redeemable convertible preferred stock into Class B common stock in connection with its initial public offering (IPO) in September 2020, all series of its redeemable convertible preferred stock to be participating securities, as the holders of such stock have the right to receive nonforfeitable dividends on a pari passu basis in the event that a dividend is declared on common stock. Under the two-class method, net loss is not allocated to the redeemable convertible preferred stock as the holders of such stock do not have a contractual obligation to share in the Company's losses.

Basic net loss per share is computed by dividing net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share is computed by giving effect to all potentially dilutive common stock equivalents to the extent they are dilutive. For purposes of this calculation, redeemable convertible preferred stock, stock options, restricted stock awards, RSUs, ESPP Rights, early exercised stock options, and common stock warrants are considered to be common stock equivalents but have been excluded from the calculation of diluted net loss per share attributable to common stockholders as their effect is anti-dilutive for all periods presented.

The rights, including the liquidation and dividend rights, of the holders of Class A and Class B common stock are identical, except with respect to voting, converting, and transfer rights. As the liquidation and dividend rights are identical, the undistributed earnings are allocated on a proportionate basis to each class of common stock and the resulting basic and diluted net loss per share attributable to common stockholders are, therefore, the same for both Class A and Class B common stock on both individual and combined basis.

Cash and Cash Equivalents

The Company considers all highly liquid investments with original or remaining maturities of three months or less when purchased to be cash equivalents.

Restricted Cash

Restricted cash primarily consists of collateralized letters of credit established in connection with lease agreements for the Company's facilities. Restricted cash is included in current assets for leases that expire within one year and is included in non-current assets for leases that expire more than one year from the balance sheet date.

Investments

The Company's investments in marketable debt securities have been classified and accounted for as available-for-sale and are recorded at estimated fair value. The Company classifies its marketable debt securities as either short-term or long-term at each balance sheet date based on each instrument's underlying contractual maturity date. Short-term investments are investments with original maturities of less than one year when purchased. Purchase premiums and discounts are amortized or accreted using the effective interest method over the life of the related security and such amortization and accretion are included in interest income in the consolidated statements of operations.

For available-for-sale debt securities in an unrealized loss position, the Company first assesses whether it intends to sell or it is more likely than not that the Company will be required to sell the security before the recovery of its entire amortized cost basis. If either of these criteria is met, the security's amortized cost basis is written down to fair value through other income (expense), net in the consolidated statements of operations. If neither of these criteria is met, the Company further assesses whether the decline in fair value below amortized cost is due to credit or non-credit related factors. In making this assessment, the Company considers the extent to which fair value is less than amortized cost, any changes to the rating of the security by a rating agency, and any adverse conditions specifically related to the security, among other factors. Credit related unrealized losses are recognized as an allowance on the consolidated balance sheets with a corresponding charge in the other income (expense), net in the consolidated statements of operations. Non-credit related unrealized losses and unrealized gains on available-for-sale debt securities are included in accumulated other comprehensive income (loss).

Realized gains and losses are determined based on the specific identification method and are reported in other income (expense), net in the consolidated statements of operations.

Strategic Investments

The Company's strategic investments consist of non-marketable equity and debt securities in privately-held companies and marketable equity securities in publicly-traded companies; in each case the Company does not have a controlling interest or significant influence. Strategic investments are included in other assets on the consolidated balance sheets.

The Company's non-marketable equity securities are recorded at cost and adjusted for observable transactions for the same or similar investments of the same issuer (referred to as the Measurement Alternative) or impairment. For these investments, the Company recognizes remeasurement adjustments, including upward and downward adjustments, and impairments, if any, in other income (expense), net in the consolidated statements of operations. Valuations of privately-held securities are inherently complex due to the lack of readily available market data and require the use of judgment. For example, determining whether an orderly transaction is for an identical or similar investment requires judgment based on the rights and obligations that are attached to the securities. In determining the estimated fair value of these investments, the Company uses the most recent data available to the Company.

Marketable equity securities are measured at fair value with changes in fair value recorded in other income (expense), net in the consolidated statements of operations.

Non-marketable debt securities are classified as available-for-sale and are recorded at their estimated fair value with changes in fair value recorded through accumulated other comprehensive income (loss).

Strategic investments are subject to periodic impairment analysis, which would involve an assessment of both qualitative and quantitative factors, including the investee's financial metrics, market acceptance of the investee's product or technology, and the rate at which the investee is using its cash. If the investment is considered impaired, the Company recognizes an impairment through other income (expense), net in the consolidated statements of operations and establishes a new carrying value for the investment.

Fair Value of Financial Instruments

The Company's primary financial instruments include cash equivalents, investments in marketable securities, strategic investments, restricted cash, accounts receivable, accounts payable and accrued expenses. The carrying amounts of cash equivalents, accounts receivable, accounts payable, and accrued expenses approximate fair value due to their short-term nature. See Note 5 for information regarding the fair value of the Company's investments in marketable securities and strategic investments.

Accounts Receivable, Net

Accounts receivable include billed and unbilled receivables, net of allowance for credit losses. Trade accounts receivable are recorded at invoiced amounts and do not bear interest. The allowance for credit losses is estimated based on the Company's assessment of the collectibility of accounts receivable by considering various factors, including the age of each outstanding invoice, the collection history of each customer, historical write-off experience, current economic conditions, and reasonable and supportable forecasts of future economic conditions over the life of the receivable. The Company assesses collectibility by reviewing accounts receivable on an aggregate basis when similar characteristics exist and on an individual basis when specific customers with collectibility issues are identified. Accounts receivable deemed uncollectible are charged against the allowance for credit losses when identified.

Internal-Use Software Development Costs

The Company capitalizes qualifying internal-use software development costs, primarily related to its cloud platform. The costs consist of personnel costs (including related benefits and stock-based compensation) that are incurred during the application development stage. Capitalization of costs begins when two criteria are met: (1) the preliminary project stage is completed, and (2) it is probable that the software will be completed and used for its intended function. Capitalization ceases when the software is substantially complete and ready for its intended use, including the completion of all significant testing. Costs related to preliminary project activities and post-implementation operating activities are expensed as incurred.

Capitalized costs are included in property and equipment, net on the consolidated balance sheets. These costs are amortized over the estimated useful life of the software, which is three years, on a straight-line basis. The amortization of capitalized costs related to the Company's platform applications is primarily included in cost of revenue in the consolidated statements of operations.

Property and Equipment, Net

Property and equipment, net is stated at cost less accumulated depreciation and amortization. Depreciation is computed using the straight-line method over the estimated useful life of the related asset, ranging from generally three to seven years. Leasehold improvements are amortized over the shorter of estimated useful life or the remaining lease term. Expenses that improve an asset or extend its remaining useful life are capitalized. Costs of maintenance or repairs that do not extend the lives of the respective assets are charged to expenses as incurred.

Deferred Commissions

The Company capitalizes incremental costs of obtaining a contract with a customer if such costs are recoverable. Such costs consist primarily of (i) sales commissions tied to new customer or customer expansion contracts earned by the Company's sales force and the associated payroll taxes and fringe benefits, and (ii) certain referral fees earned by third parties. These costs are capitalized and then amortized over a period of benefit that is determined to be five years. The Company determined the period of benefit by taking into consideration the length of terms in its customer contracts, life of the technology, and other factors. Amounts expected to be recognized within one year of the balance sheet date are recorded as deferred commissions, current, and the remaining portion is recorded as deferred commissions, non-current, on the consolidated balance sheets. Amortization expense is included in sales and marketing expenses in the consolidated statements of operations. As a result of modifications to the Company's sales compensation plan during the fiscal year ended January 31, 2021, a portion of the sales commissions paid to the sales force is earned based on the rate of the customers' consumption of the Company's platform, in addition to a portion of the commissions earned upon the origination of the new customer or customer expansion contract. Sales commissions tied to customers' consumption are not considered incremental costs and are expensed in the same period as they are earned. Deferred commissions are periodically analyzed for impairment. There were no impairment losses relating to the deferred commissions for all periods presented.

Leases

The Company determines if an arrangement is or contains a lease at inception by evaluating various factors, including if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration and other facts and circumstances. Lease classification is determined at the lease commencement date. Operating leases are included in operating lease right-of-use assets, operating lease liabilities, current, and operating lease liabilities, noncurrent on the consolidated balance sheets. The Company did not have any material finance leases for all periods presented.

Right-of-use assets represent the Company's right to use an underlying asset for the lease term, and lease liabilities represent the Company's obligation to make payments arising from the lease. Operating lease right-of-use assets and liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term. Lease payments consist primarily of the fixed payments under the arrangement, less any lease incentives. Variable lease payments are expensed as incurred and include certain non-lease components, such as maintenance and other services provided by the lessor to the extent the charges are variable. The Company uses an estimate of its incremental borrowing rate (IBR) based on the information available at the lease commencement date in determining the present value of lease payments, unless the implicit rate is readily determinable. In determining the appropriate IBR, the Company considers various factors, including, but not limited to, its credit rating, the lease term, and the currency in which the arrangement is denominated. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

The Company does not separate non-lease components from lease components for its facility asset portfolio. In addition, the Company does not recognize right-of-use assets and lease liabilities for short-term leases, which have a lease term of 12 months or less and do not include an option to purchase the underlying asset that the Company is reasonably certain to exercise. Lease cost for short-term leases is recognized on a straight-line basis over the lease term.

In addition, the Company subleases certain of its unoccupied facilities to third parties. Any impairment to the associated right-of-use assets, leasehold improvements, or other assets as a result of a sublease is recognized in the period the sublease is executed and recorded in the consolidated statements of operations. The Company recognizes sublease income on a straight-line basis over the sublease term. Sublease income is recorded as a reduction to the Company's operating lease costs.

Business Combinations

The Company applies a screen test to evaluate if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets to determine whether a transaction is accounted for as an asset acquisition or business combination. When the Company acquires a business, the purchase consideration is allocated to the tangible assets acquired, liabilities assumed, and intangible assets acquired based on their estimated respective fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. The Company's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates.

Impairment of Goodwill, Intangible Assets, and Other Long-Lived Assets

The Company's long-lived assets with finite lives consist primarily of property and equipment, capitalized development software costs, operating lease right-of-use assets and acquired intangible assets. Long-lived assets with finite lives are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be recoverable. Recoverability of assets held and used is measured by comparison of the carrying amount of an asset or an asset group to estimated undiscounted future net cash flows expected to be generated by the asset or asset group. If the carrying amount of an asset exceeds these estimated future cash flows, an impairment charge is recognized by the amount by which the carrying amount of the assets exceeds the fair value of the asset or asset group. The Company did not recognize any material impairments of long-lived assets for all periods presented.

Goodwill and indefinite-lived intangible assets are not amortized but rather tested for impairment at least annually in the fourth quarter, or more frequently if events or changes in circumstances indicate that impairment may exist. Goodwill impairment is recognized when the quantitative assessment results in the carrying value of the reporting unit exceeding its fair value, in which case an impairment charge is recorded to goodwill to the extent the carrying value exceeds the fair value, limited to the amount of goodwill. The Company did not recognize any impairment of goodwill for all periods presented.

Deferred Revenue

The Company records deferred revenue when the Company receives customer payments in advance of satisfying the performance obligations on the Company's contracts. Capacity arrangements are generally billed and paid in advance of satisfaction of performance obligations, and the Company's on-demand arrangements are billed in arrears generally on a monthly basis. Deferred revenue also includes amounts that have been invoiced but not yet collected, classified as accounts receivable, when the Company has an enforceable right to invoice for capacity arrangements. Deferred revenue relating to the Company's capacity arrangements that have a contractual expiration date of less than 12 months are classified as current. For capacity arrangements that have a contractual expiration date of greater than 12 months, the Company apportions deferred revenue between current and non-current based upon an assumed ratable consumption of these capacity arrangements over the entire term of the arrangement, even though it does not recognize revenue ratably over the term of the contract as customers have flexibility in their consumption and revenue is generally recognized on consumption. In addition, in many cases, the Company's customer contracts also permit customers to roll over any unused capacity to a subsequent order, generally on the purchase of additional capacity. As such, the current or non-current classification of deferred revenue may not reflect the actual timing of revenue recognition.

Recently Adopted Accounting Pronouncements

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, which requires a financial asset measured at amortized cost basis to be presented at the net amount expected to be collected, with further clarifications made more recently. For trade receivables, loans, and other financial instruments, the Company is required to use a forward-looking expected loss model rather than the incurred loss model for recognizing credit losses which reflects losses that are probable. Credit losses relating to available-for-sale debt securities are required to be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. The Company early adopted this guidance effective February 1, 2021 on a modified retrospective basis, and the adoption did not result in any cumulative effect adjustment in its consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract*, which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The accounting for the service element of a hosting arrangement that is a service contract is not affected by this new guidance. The Company adopted this guidance effective February 1, 2021 on a prospective basis, and the adoption did not have a material impact on its consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which simplifies the accounting for income taxes by eliminating some exceptions to the general approach in ASC 740, *Income Taxes* in order to reduce the cost and complexity of its application. The Company early adopted this guidance effective February 1, 2021, and the adoption did not have a material impact on its consolidated financial statements.

In October 2021, the FASB issued ASU 2021-08, *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*, which requires contract assets and contract liabilities acquired in a business combination to be recognized and measured by the acquirer on the acquisition date in accordance with ASC 606, *Revenue from Contracts with Customers*, as if it had originated the contracts. Under the current business combinations guidance, such assets and liabilities are recognized by the acquirer at fair value on the acquisition date. The Company early adopted this guidance upon issuance to all business combinations that occur on or after the date of adoption. The adoption had no impact on the Company's consolidated financial statements as there were no acquisitions accounted for as business combinations in fiscal 2022.

3. Revenue, Accounts Receivable, Deferred Revenue and Remaining Performance Obligations

Disaggregation of Revenue

Revenue consists of the following (in thousands):

	Fiscal Year Ended January 31,		
	2022	**2021**	**2020**
Product revenue	$ 1,140,469	$ 553,794	$ 252,229
Professional services and other revenue	78,858	38,255	12,519
Total	$ 1,219,327	$ 592,049	$ 264,748

Revenue by geographic area, based on the location of the Company's customers (or end-customers under reseller arrangements), was as follows (in thousands):

	Fiscal Year Ended January 31,		
	2022	2021	2020
Americas:			
United States	$ 977,077	$ 499,590	$ 233,828
Other Americas[1]	26,324	9,480	2,537
EMEA[1][2]	169,268	66,813	22,388
Asia-Pacific and Japan[1]	46,658	16,166	5,995
Total	$ 1,219,327	$ 592,049	$ 264,748

(1) No individual country in these areas represented more than 10% of the Company's revenue for all periods presented.
(2) Europe, the Middle East and Africa

Accounts Receivable, Net

As of January 31, 2022 and 2021, allowance for credit losses of $1.3 million and $2.6 million, was included in the Company's accounts receivable, net balance, respectively.

Significant Customers

For purposes of assessing the concentration of credit risk and significant customers, a group of customers under common control or customers that are affiliates of each other are regarded as a single customer. The Company's significant customers that represented 10% or more of revenue for the periods presented were as follows:

	Fiscal Year Ended January 31,		
	2022	2021	2020
Customer A	*	*	11 %

* Less than 10%

As of January 31, 2022 and 2021, there were no customers that represented 10% or more of the Company's accounts receivable, net balance.

Deferred Revenue

The Company recognized $535.8 million, $257.9 million, and $89.1 million of revenue for the fiscal years ended January 31, 2022, 2021, and 2020, respectively, from the deferred revenue balances as of January 31, 2021, 2020, and 2019, respectively.

Remaining Performance Obligations

Remaining performance obligations (RPO) represent the amount of contracted future revenue that has not yet been recognized, including (i) deferred revenue, and (ii) non-cancelable contracted amounts that will be invoiced and recognized as revenue in future periods. The Company's RPO excludes performance obligations from on-demand arrangements as there are no minimum purchase commitments associated with these arrangements, and certain time and materials contracts that are billed in arrears. Portions of RPO that are not yet invoiced and are denominated in foreign currencies are revalued into USD each period based on the applicable period-end exchange rates.

As of January 31, 2022, the Company's RPO was $2.6 billion, of which approximately 77% was related to contracts with original terms that exceed one year. The weighted-average remaining life of the Company's contracts with original terms that exceed one year was 2.5 years as of January 31, 2022. However, the amount and timing of revenue recognition are generally driven by customers' consumption, which can extend beyond the original contract term in cases where customers are permitted to roll over unused capacity to future periods, generally on the purchase of additional capacity at renewal.

4. Cash Equivalents and Investments

The following is a summary of the Company’s cash equivalents, short-term investments, and long-term investments on the consolidated balance sheets (in thousands):

	January 31, 2022			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Cash equivalents:				
Money market funds	$ 722,492	$ —	$ —	$ 722,492
Commercial paper	77,795	1	(2)	77,794
U.S. government securities	36,997	—	(2)	36,995
Corporate notes and bonds	7,950	—	(1)	7,949
Total cash equivalents	845,234	1	(5)	845,230
Investments:				
Corporate notes and bonds	2,610,010	91	(12,062)	2,598,039
Commercial paper	884,376	81	(821)	883,636
U.S. government and agency securities	439,449	28	(2,558)	436,919
Certificates of deposit	104,108	4	(135)	103,977
Total investments	4,037,943	204	(15,576)	4,022,571
Total cash equivalents and investments	$ 4,883,177	$ 205	$ (15,581)	$ 4,867,801

	January 31, 2021			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Cash equivalents:				
Money market funds	$ 334,891	$ —	$ —	$ 334,891
Commercial paper	242,040	2	(5)	242,037
Corporate notes and bonds	58,969	3	(2)	58,970
U.S. government securities	23,700	—	—	23,700
Certificates of deposit	23,500	3	—	23,503
Total cash equivalents	683,100	8	(7)	683,101
Investments:				
Corporate notes and bonds	2,287,006	628	(481)	2,287,153
U.S. government and agency securities	1,016,059	250	(46)	1,016,263
Commercial paper	711,389	85	(102)	711,372
Certificates of deposit	238,278	97	(1)	238,374
Total investments	4,252,732	1,060	(630)	4,253,162
Total cash equivalents and investments	$ 4,935,832	$ 1,068	$ (637)	$ 4,936,263

The Company included $14.1 million and $15.2 million of interest receivable in prepaid expenses and other current assets on the consolidated balance sheets as of January 31, 2022 and 2021, respectively. The Company did not recognize an allowance for credit losses against interest receivable as of January 31, 2022 and 2021 because such potential losses were not material.

As of January 31, 2022, the contractual maturities of the Company's available-for-sale marketable debt securities did not exceed 36 months. The estimated fair values of available-for-sale marketable debt securities, by remaining contractual maturity, are as follows (in thousands):

	January 31, 2022	
	Estimated Fair Value	
Due within 1 year	$	2,889,102
Due in 1 year to 3 years		1,256,207
Total	$	4,145,309

The following table shows the fair values of and the gross unrealized losses on the Company's available-for-sale marketable debt securities, classified by the length of time that the securities have been in a continuous unrealized loss position and aggregated by investment types, on the consolidated balance sheet as of January 31, 2022 (in thousands):

	January 31, 2022					
	Less than 12 Months		12 Months or Greater		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Cash equivalents:						
Commercial paper	$ 55,819	$ (2)	$ —	$ —	$ 55,819	$ (2)
U.S. government securities	36,995	(2)	—	—	36,995	(2)
Corporate notes and bonds	7,629	(1)	—	—	7,629	(1)
Total cash equivalents	100,443	(5)	—	—	100,443	(5)
Investments:						
Corporate notes and bonds	2,378,956	(12,044)	8,935	(18)	2,387,891	(12,062)
Commercial paper	653,827	(821)	—	—	653,827	(821)
U.S. government and agency securities	334,980	(2,558)	—	—	334,980	(2,558)
Certificates of deposit	49,118	(135)	—	—	49,118	(135)
Total investments	3,416,881	(15,558)	8,935	(18)	3,425,816	(15,576)
Total cash equivalents and investments	$ 3,517,324	$ (15,563)	$ 8,935	$ (18)	$ 3,526,259	$ (15,581)

Gross unrealized losses on the Company's available-for-sale marketable debt securities were $0.6 million as of January 31, 2021.

For available-for-sale marketable debt securities with unrealized loss positions, the Company does not intend to sell these securities and it is more likely than not that the Company will hold these securities until maturity or a recovery of the cost basis. The decline in fair value of these securities due to credit related factors was not material as of January 31, 2022 and 2021.

See Note 5 for information regarding the Company's strategic investments.

5. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date. The accounting guidance establishes a three-tiered hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value as follows:

Level 1 Inputs: Unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date.

Level 2 Inputs: Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.

Level 3 Inputs: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date.

The following table presents the fair value hierarchy for the Company’s assets measured at fair value on a recurring basis as of January 31, 2022 (in thousands):

	Level 1	Level 2	Total
Cash equivalents:			
Money market funds	$ 722,492	$ —	$ 722,492
Commercial paper	—	77,794	77,794
U.S. government securities	—	36,995	36,995
Corporate notes and bonds	—	7,949	7,949
Short-term investments:			
Corporate notes and bonds	—	1,662,436	1,662,436
Commercial paper	—	883,636	883,636
U.S. government and agency securities	—	116,712	116,712
Certificates of deposit	—	103,580	103,580
Long-term investments:			
Corporate notes and bonds	—	935,603	935,603
U.S. government and agency securities	—	320,207	320,207
Certificates of deposit	—	397	397
Total	$ 722,492	$ 4,145,309	$ 4,867,801

The following table presents the fair value hierarchy for the Company’s assets measured at fair value on a recurring basis as of January 31, 2021 (in thousands):

	Level 1	Level 2	Total
Cash equivalents:			
Money market funds	$ 334,891	$ —	$ 334,891
Commercial paper	—	242,037	242,037
Corporate notes and bonds	—	58,970	58,970
U.S. government securities	—	23,700	23,700
Certificates of deposit	—	23,503	23,503
Short-term investments:			
Corporate notes and bonds	—	1,318,573	1,318,573
U.S. government and agency securities	—	829,318	829,318
Commercial paper	—	711,372	711,372
Certificates of deposit	—	228,624	228,624
Long-term investments:			
Corporate notes and bonds	—	968,580	968,580
U.S. government and agency securities	—	186,945	186,945
Certificates of deposit	—	9,750	9,750
Total	$ 334,891	$ 4,601,372	$ 4,936,263

The Company determines the fair value of its security holdings based on pricing from the Company’s service providers and market prices from industry-standard independent data providers. Such market prices may be quoted prices in active markets for identical assets (Level 1 inputs) or pricing determined using inputs other than quoted prices that are observable either directly or indirectly (Level 2 inputs), such as yield curve, volatility factors, credit spreads, default rates, loss severity, current market and contractual prices for the underlying instruments or debt, broker and dealer quotes, as well as other relevant economic measures.

Strategic Investments

The tables above do not include the Company’s strategic investments in non-marketable equity securities, which are recorded at fair value on a non-recurring basis using the Measurement Alternative, or the Company's strategic investments in marketable equity securities and non-marketable debt securities, which are recorded at fair value on a recurring basis.

The non-marketable equity and debt securities that the Company holds are valued using significant unobservable inputs or data in an inactive market. As a result, the Company classifies these assets as Level 3 within the fair value hierarchy. The estimation of fair value for the Company’s non-marketable equity securities requires the use of an observable transaction price and other unobservable inputs, including the volatility, rights, and obligations of the securities the Company holds. The marketable equity securities that the Company holds are valued using the quoted market price and are classified as Level 1 within the fair value hierarchy.

The following table presents the fair value hierarchy for the Company’s strategic investments measured at fair value as of January 31, 2022 (in thousands):

	Level 1	Level 3	Total
Equity securities:			
Non-marketable equity securities	$ —	$ 170,860	$ 170,860
Marketable equity securities	34,646	—	34,646
Debt securities:			
Non-marketable debt securities	—	2,250	2,250
Total strategic investments—included in other assets	$ 34,646	$ 173,110	$ 207,756

The following table presents the fair value hierarchy for the Company’s strategic investments measured at fair value as of January 31, 2021 (in thousands):

	Level 1	Level 3	Total
Non-marketable equity securities	$ —	$ 41,000	$ 41,000
Non-marketable debt securities	—	500	500
Total strategic investments—included in other assets	$ —	$ 41,500	$ 41,500

The cumulative amount of upward adjustments recognized on the Company’s strategic investments in non-marketable equity securities was $33.0 million, all of which was recorded during the fiscal year ended January 31, 2022.

During the fiscal year ended January 31, 2022, the Company made strategic investments of $40.0 million in marketable equity securities and recognized net unrealized losses of $5.4 million on these investments.

6. Property and Equipment, Net

Property and equipment, net consisted of the following (in thousands):

	January 31, 2022	January 31, 2021
Leasehold improvements	$ 51,801	$ 41,593
Computers, equipment, and software	8,735	3,817
Furniture and fixtures	8,488	6,627
Capitalized internal-use software development costs	17,154	12,855
Construction in progress—capitalized internal-use software development costs	36,163	4,628
Construction in progress—other	6,185	11,402
Total property and equipment, gross	128,526	80,922
Less: accumulated depreciation and amortization(1)	(23,447)	(11,954)
Total property and equipment, net	$ 105,079	$ 68,968

(1) Includes $9.7 million and $5.5 million of accumulated amortization related to capitalized internal-use software development costs as of January 31, 2022 and 2021, respectively.

Depreciation and amortization expense was $13.7 million, $7.0 million, and $2.6 million for the fiscal years ended January 31, 2022, 2021, and 2020, respectively. Included in these amounts were the amortization of capitalized internal-use software development costs of $4.2 million, $2.9 million, and $0.8 million for the fiscal years ended January 31, 2022, 2021, and 2020, respectively.

7. Business Combinations, Intangible Assets, and Goodwill

Business Combinations

During the fiscal year ended January 31, 2021, the Company acquired certain assets from a privately-held company for $7.1 million in cash. The Company has accounted for this transaction as a business combination. In allocating the aggregate purchase price based on the estimated fair values, the Company recorded $5.7 million as a developed technology intangible asset (to be amortized over an estimated useful life of five years) and $1.4 million as goodwill, which is deductible for income tax purposes.

During the fiscal year ended January 31, 2020, the Company completed acquisitions of two privately-held companies for an aggregate of $13.3 million in cash and equity. The Company has accounted for these transactions as business combinations. In allocating the aggregate purchase price based on the estimated fair values, the Company recorded a total of $5.6 million of developed technology intangible assets (to be amortized over estimated useful lives of five years), $1.1 million of net assets acquired, $0.5 million of a deferred tax liability, $0.1 million of a customer relationships intangible asset, and $7.0 million of goodwill, which is not deductible for income tax purposes.

The excess of purchase consideration over the fair value of net tangible and identifiable assets acquired was recorded as goodwill. The Company believes the goodwill balances associated with these business combinations represent the synergies expected from expanded market opportunities when integrating the acquired developed technologies with the Company's offerings.

Aggregate acquisition-related costs associated with these business combinations were not material for all periods presented, and were included in general and administrative expenses in the consolidated statements of operations. The results of operations of the business combinations have been included in the Company's consolidated financial statements from the acquisition dates. These business combinations did not have a material impact on the Company's consolidated financial statements. Therefore, historical results of operations prior to the acquisition dates and pro forma results of operations have not been presented.

Intangible Assets, Net

Intangible assets, net consisted of the following (in thousands):

	January 31, 2022					
	Gross		Accumulated Amortization		Net	
Finite-lived intangible assets:						
Assembled workforce	$	28,252	$	(3,941)	$	24,311
Developed technology		11,332		(4,812)		6,520
Patents		8,174		(2,690)		5,484
Other		47		(47)		—
Total finite-lived intangible assets	$	47,805	$	(11,490)	$	36,315
Infinite-lived intangible assets - trademarks						826
Total intangible assets, net					$	37,141

	January 31, 2021					
	Gross		Accumulated Amortization		Net	
Finite-lived intangible assets:						
Developed technology	$	11,332	$	(2,546)	$	8,786
Patents		7,948		(1,069)		6,879
Other		47		(47)		—
Total finite-lived intangible assets	$	19,327	$	(3,662)	$	15,665
Infinite-lived intangible assets - trademarks						426
Total intangible assets, net					$	16,091

Intangible assets acquired during the fiscal year ended January 31, 2022 consisted primarily of $28.3 million of assembled workforce assets with a useful life of four years.

Amortization expense of intangible assets was $7.8 million, $2.8 million, and $0.9 million for the fiscal years ended January 31, 2022, 2021, and 2020, respectively.

As of January 31, 2022, future amortization expense is expected to be as follows (in thousands):

		Amount
Fiscal Year Ending January 31,		
2023	$	10,976
2024		10,976
2025		10,126
2026		4,237
2027		—
Thereafter		—
Total	$	36,315

Goodwill

Changes in goodwill were as follows (in thousands):

		Amount
Balance—January 31, 2020	$	7,049
Addition		1,400
Balance—January 31, 2021 and January 31, 2022	$	8,449

8. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	January 31, 2022	January 31, 2021
Accrued compensation	$ 98,916	$ 62,451
Employee contributions under employee stock purchase plan	28,497	22,068
Accrued third-party cloud infrastructure expenses	13,341	6,648
Accrued taxes	12,709	4,498
Accrued professional services	7,068	6,628
Accrued purchases of property and equipment	4,204	6,718
Other	35,929	16,304
Total accrued expenses and other current liabilities	$ 200,664	$ 125,315

9. Commitments and Contingencies

Operating Leases

The Company leases its facilities for office space under non-cancelable operating leases with various expiration dates through fiscal 2033. Certain lease agreements include options to renew or terminate the lease, which are not reasonably certain to be exercised and therefore are not factored into the determination of lease payments.

In addition, the Company subleases certain of its unoccupied facilities to third parties with various expiration dates through fiscal 2030. Such subleases have all been classified as operating leases.

The components of lease costs and other information related to leases were as follows (in thousands):

	Fiscal Year Ended January 31,		
	2022	2021	2020
Operating lease costs	$ 35,745	$ 33,627	$ 27,711
Variable lease costs	6,029	6,203	5,002
Sublease income	(12,722)	(12,779)	(6,026)
Total lease costs	$ 29,052	$ 27,051	$ 26,687

Supplemental cash flow information and non-cash activity related to the Company’s operating leases were as follows (in thousands):

	Fiscal Year Ended January 31,		
	2022	2021	2020
Cash payments (receipts) included in the measurement of operating lease liabilities – operating cash flows	$ 38,249	$ 31,281	$ 13,458
Operating lease liabilities arising from obtaining right-of-use assets	$ 28,314	$ 11,506	$ 194,712

Weighted-average remaining lease term and discount rate for the Company's operating leases were as follows:

	January 31, 2022	January 31, 2021
Weighted-average remaining lease term (years)	8.0	9.2
Weighted-average discount rate	5.9 %	6.2 %

The total remaining lease payments under non-cancelable operating leases and lease receipts for subleases as of January 31, 2022 were as follows (in thousands):

	Operating Leases	Subleases	Total
Fiscal Year Ending January 31,			
2023	$ 36,068	$ (12,617)	$ 23,451
2024	38,460	(11,992)	26,468
2025	30,159	(7,763)	22,396
2026	27,186	(5,774)	21,412
2027	27,144	(5,960)	21,184
Thereafter	106,885	(15,738)	91,147
Total lease payments (receipts)	$ 265,902	$ (59,844)	$ 206,058
Less: imputed interest	(59,605)		
Present value of operating lease liabilities	$ 206,297		

Lease payments presented above exclude $25.3 million of legally-binding lease commitments, net of tenant incentives expected to be received, for leases signed but not yet commenced as of January 31, 2022. These leases will commence in fiscal 2023 with lease terms of 4.6 to 9.5 years.

Other Contractual Commitments

Other contractual commitments relate mainly to third-party cloud infrastructure agreements and subscription arrangements used to facilitate the Company’s operations at the enterprise level.

Future minimum payments under the Company’s non-cancelable purchase commitments with a remaining term in excess of one year as of January 31, 2022 are presented in the table below (in thousands):

	Amount
Fiscal Year Ending January 31,	
2023	$ 44,662
2024	280,961
2025	326,227
2026	852,323 [1]
2027	93
Thereafter	—
Total	$ 1,504,266

[1] Includes $495.4 million of remaining non-cancelable contractual commitments as of January 31, 2022 related to one of the Company's third-party cloud infrastructure agreements, under which the Company committed to spend an aggregate of at least $555.0 million, between September 2020 and December 2025 with no minimum purchase commitment during any year. The Company is required to pay the difference if it fails to meet the minimum purchase commitment by December 2025, and such payment can be applied to qualifying expenditures for cloud infrastructure services for up to twelve months after December 2025.

401(k) Plan—The Company sponsors a 401(k) defined contribution plan covering all eligible U.S. employees. Contributions to the 401(k) plan are discretionary. The Company did not make any matching contributions to the 401(k) plan for each of the fiscal years ended January 31, 2022, 2021, and 2020.

Legal Matters—The Company is involved from time to time in various claims and legal actions arising in the ordinary course of business. While it is not feasible to predict or determine the ultimate outcome of these matters, the Company believes that none of its current legal proceedings will have a material adverse effect on its financial position, results of operations, or cash flows.

Letters of Credit—As of January 31, 2022, the Company had a total of $16.8 million in cash collateralized letters of credit outstanding, substantially in favor of certain landlords for the Company's leased facilities. These letters of credit renew annually and expire at various dates through fiscal 2033.

Indemnification—The Company enters into indemnification provisions under agreements with other parties in the ordinary course of business, including business partners, investors, contractors, customers, and the Company's officers, directors, and certain employees. The Company has agreed to indemnify and defend the indemnified party for claims and related losses suffered or incurred by the indemnified party from actual or threatened third-party claims due to the Company's activities or non-compliance with certain representations and warranties made by the Company. It is not possible to determine the maximum potential loss under these indemnification provisions due to the Company's limited history of prior indemnification claims and the unique facts and circumstances involved in each particular provision. For each of the fiscal years ended January 31, 2022, 2021, and 2020, losses recorded in the consolidated statements of operations in connection with the indemnification provisions were not material.

10. Redeemable Convertible Preferred Stock

Upon completion of its IPO in September 2020, as further discussed in Note 11, all shares of the Company's redeemable convertible preferred stock outstanding, totaling 182,271,099, were automatically converted into an equivalent number of shares of Class B common stock on one-to-one basis and their carrying value of $1.4 billion was reclassified into stockholders' equity. As of January 31, 2022 and January 31, 2021, there were no shares of redeemable convertible preferred stock issued and outstanding.

11. Equity

Initial Public Offering and Private Placements—In September 2020, the Company completed its IPO, in which the Company issued and sold 32,200,000 shares of its Class A common stock at $120.00 per share, including 4,200,000 shares issued upon the exercise of the underwriters' option to purchase additional shares. The Company received net proceeds of $3.7 billion after deducting underwriting discounts. In connection with the IPO:

- all 182,271,099 shares of the Company's outstanding redeemable convertible preferred stock automatically converted into an equivalent number of shares of Class B common stock on a one-to-one basis; and

- Salesforce Ventures LLC and Berkshire Hathaway Inc. each purchased 2,083,333 shares of the Company's Class A common stock at $120.00 per share in concurrent private placements that closed immediately subsequent to the closing of the IPO. The Company received aggregate proceeds of $500.0 million in these concurrent private placements and did not pay underwriting discounts with respect to the shares of Class A common stock that were sold in these private placements.

Prior to the IPO, deferred offering costs, which consist of direct incremental legal, accounting, and consulting fees relating to the IPO, were capitalized in other assets on the consolidated balance sheets. These deferred offering costs, net of reimbursement received from the underwriters upon completion of the IPO, were not material.

Preferred Stock—In connection with the IPO, the Company's amended and restated certificate of incorporation became effective, which authorized the issuance of 200,000,000 shares of undesignated preferred stock with a par value of $0.0001 per share and with rights and preferences, including voting rights, designated from time to time by the board of directors.

Common Stock and Elimination of Dual-Class Structure—The Company has two classes of common stock authorized: Class A common stock and Class B common stock. In connection with the IPO, the Company's amended and restated certificate of incorporation authorized the issuance of 2,500,000,000 shares of Class A common stock and 355,000,000 shares of Class B common stock. On March 1, 2021, all 169,538,568 shares of the Company's then-outstanding Class B common stock, par value $0.0001 per share, were automatically converted into the same number of shares of Class A common stock, par value $0.0001 per share, pursuant to the terms of the Company's amended and restated certificate of incorporation. No additional shares of Class B common stock will be issued following such conversion.

The shares of Class A common stock and Class B common stock were identical prior to the conversion, except with respect to voting, converting, and transfer rights. Prior to the conversion, each share of Class B common stock was entitled to cast ten votes per share on any matter submitted to a vote of the Company's stockholders. As a result of the conversion, all former holders of shares of Class B common stock are now holders of shares of Class A common stock, which is entitled to only one vote per share on all matters subject to a stockholder vote. Class A and Class B common stock are referred to as common stock throughout the notes to the consolidated financial statements, unless otherwise indicated. Holders of common stock are entitled to receive any dividends as may be declared from time to time by the board of directors.

Prior to the conversion, shares of Class B common stock were convertible to Class A common stock at any time at the option of the stockholder, and shares of Class B common stock would automatically convert to Class A common stock upon the following: (i) sale or transfer of such share of Class B common stock; (ii) the death of the Class B common stockholder (or nine months after the date of death if the stockholder is one of the Company's founders); and (iii) on the final conversion date, defined as the earlier to occur following an IPO of (a) the first trading day on or after the date on which the outstanding shares of Class B common stock represented less than 10% of the then outstanding Class A and Class B common stock; (b) September 15, 2027, which is the seventh anniversary of the effectiveness of the registration statement filed in connection with the IPO; or (c) the date specified by a vote of the holders of a majority of the outstanding shares of Class B common stock, voting as a single class.

In addition, on March 3, 2021, the Company filed a certificate with the Secretary of State of the State of Delaware effecting the retirement of the shares of Class B common stock that were issued but no longer outstanding following the conversion. Upon the effectiveness of the certificate, the Company's total number of authorized shares of capital stock was reduced by the retirement of 169,538,568 shares of Class B Common Stock.

The Company had reserved shares of common stock for future issuance as follows:

	January 31, 2022	January 31, 2021
2012 Equity Incentive Plan:		
Options outstanding	42,043,097	64,574,656
Restricted stock units outstanding	4,530,324	7,520,474
2020 Equity Incentive Plan:		
Shares available for future grants	45,446,313	32,871,367
Restricted stock units outstanding	5,081,999	1,828,083
2020 Employee Stock Purchase Plan:		
Shares available for future grants	8,208,724	5,700,000
Total shares of common stock reserved for future issuance	105,310,457	112,494,580

In February 2020, certain third parties unaffiliated with the Company commenced an offer to purchase existing outstanding shares of the Company's Class B common stock from certain equity holders at a price of $38.77 per share. The Company was not a party to this transaction. The transaction was completed in March 2020, and an aggregate of 8.6 million shares of the Company's Class B common stock were transferred to these third parties.

Equity Incentive Plans—In 2012, the Company's board of directors approved the adoption of the 2012 Equity Incentive Plan (2012 Plan). The 2012 Plan provides for the grant of stock-based awards to employees, non-employee directors, and other service providers of the Company. The 2012 Plan was terminated in September 2020 in connection with the IPO but continues to govern the terms of outstanding awards that were granted prior to the termination of the 2012 Plan. No further equity awards will be granted under the 2012 Plan. With the establishment of the 2020 Equity Incentive Plan (2020 Plan) as further discussed below, upon the expiration, forfeiture, cancellation, or reacquisition of any shares of common stock underlying outstanding stock-based awards granted under the 2012 Plan, an equal number of shares of Class A common stock will become available for grant under the 2020 Plan. On March 1, 2021, all shares of the Company's then-outstanding Class B common stock were automatically converted into the same number of shares of Class A common stock. As a result of this conversion, options and restricted stock units (RSUs) that were previously denominated in shares of Class B common stock and issued under the 2012 Plan remained unchanged, except that they represent the right to receive shares of Class A common stock.

In September 2020, the Company's board of directors adopted, and its stockholders approved, the 2020 Plan, which became effective in connection with the IPO. The 2020 Plan provides for the grant of incentive stock options, nonqualified stock options, stock appreciation rights, restricted stock awards, RSU awards, performance awards and other forms of equity compensation (collectively, equity awards). A total of 34,100,000 shares of the Company's Class A common stock have been reserved for issuance under the 2020 Plan in addition to (i) any annual automatic evergreen increases in the number of shares of Class A common stock reserved for issuance under the 2020 Plan and (ii) upon the expiration, forfeiture, cancellation, or reacquisition of any shares of Class B common stock underlying outstanding stock awards granted under the 2012 Plan, an equal number of shares of Class A common stock, such number of shares not to exceed 78,816,888.

In September 2020, the Company's board of directors adopted, and its stockholders approved, the 2020 Employee Stock Purchase Plan (2020 ESPP), which became effective in connection with the IPO. The 2020 ESPP authorizes the issuance of shares of common stock pursuant to purchase rights granted to employees. A total of 5,700,000 shares of the Company's Class A common stock have been reserved for future issuance under the 2020 ESPP, in addition to any annual automatic evergreen increases in the number of shares of Class A common stock reserved for future issuance under the 2020 ESPP. The price at which Class A common stock is purchased under the 2020 ESPP is equal to 85% of the fair market value of a share of the Company's Class A common stock on the first or last day of the offering period, whichever is lower. Offering periods are generally six months long and begin on March 15 and September 15 of each year, except for the first two offering periods. The initial offering period began on September 15, 2020 and ended on February 26, 2021. The second offering period began on March 1, 2021 and ended on September 14, 2021.

Stock Options—Stock options granted under the 2012 Plan and the 2020 Plan (collectively, the Plans) generally vest based on continued service over four years and expire ten years from the date of grant. Certain stock options granted under the 2012 Plan are exercisable at any time following the date of grant and expire ten years from the date of grant.

Stock option activity and activity regarding shares available for grant under the Plans during the fiscal years ended January 31, 2022, 2021, and 2020 is as follows:

	Shares Available for Grant	Number of Options Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (in thousands)
Balance—January 31, 2019	5,479,974	51,535,443	$ 2.63	8.8	$ 287,993
Shares authorized	33,799,630	—			
Options granted	(46,934,532)	46,934,532	$ 9.21		
Options exercised	—	(9,735,006)	$ 3.47		
Options forfeited	7,831,769	(7,831,769)	$ 4.07		
Repurchases of unvested common stock	252,260	—			
Restricted stock awards granted	(16,700)	—			
Balance—January 31, 2020	412,401	80,903,200	$ 6.21	8.6	$ 1,546,313
Shares authorized	54,970,187	—			
Shares ceased to be available for issuance under the 2012 Plan	(15,696,031)	—			
Options granted	(876,961)	876,961	$ 34.83		
Options exercised	—	(13,798,741)	$ 3.90		
Options forfeited	3,406,764	(3,406,764)	$ 7.04		
Repurchase of unvested common stock	40,000	—			
RSUs granted	(9,552,687)	—			
RSUs forfeited	167,694	—			
Balance—January 31, 2021	32,871,367	64,574,656	$ 7.04	7.7	$ 17,138,896
Shares authorized	14,395,880	—			
Options exercised	—	(20,902,509)	$ 6.08		
Options forfeited	1,629,050	(1,629,050)	$ 6.80		
RSUs granted	(4,025,850)	—			
RSUs forfeited	575,866	—			
Balance—January 31, 2022	45,446,313	42,043,097	$ 7.53	6.9	$ 11,283,299
Vested and exercisable as of January 31, 2022		22,862,872	$ 6.44	6.5	$ 6,160,733

No options were granted during the fiscal year ended January 31, 2022 and the weighted-average grant-date fair value of options granted during the fiscal years ended January 31, 2021 and 2020 was $22.67 and $4.41, respectively. The intrinsic value of options exercised for the fiscal years ended January 31, 2022, 2021, and 2020 was $5.7 billion, $2.0 billion, and $89.9 million, respectively. The aggregate grant-date fair value of options that vested during the fiscal years ended January 31, 2022, 2021, and 2020 was $81.0 million, $90.9 million, and $53.5 million, respectively.

Restricted Stock Awards—Common stock issued pursuant to a restricted stock award is not deemed to be outstanding for accounting purposes until those shares vest. Restricted stock award activity during the fiscal years ended January 31, 2022, 2021, and 2020 is as follows:

	Under the Plans		Out of the Plans	
	Number of Shares	Weighted-Average Grant Date Fair Value per Share	Number of Shares	Weighted-Average Grant Date Fair Value per Share
Unvested Balance—January 31, 2019	920,380	$ 7.24	1,652,446	$ 1.49
Granted	16,700	$ 8.58	661,635	$ 1.61
Vested	(920,380)	$ 7.24	(442,222)	$ 0.50
Repurchased	—	$ —	(268,297)	$ —
Unvested Balance—January 31, 2020	16,700	$ 8.58	1,603,562	$ 2.06
Vested	(16,700)	$ 8.58	(861,651)	$ 2.03
Unvested Balance—January 31, 2021	—	$ —	741,911	$ 2.11
Vested	—	$ —	(361,651)	$ 2.10
Unvested Balance—January 31, 2022	—	$ —	380,260	$ 2.11

Under the 2012 Plan, the Company granted restricted stock awards to certain third-party service providers in exchange for their services. These restricted stock awards vested upon the satisfaction of certain performance-based vesting conditions, which were fully satisfied as of January 31, 2021. The aggregate grant-date fair value of restricted stock awards vested under the 2012 Plan was $0.1 million and $6.7 million for the fiscal years ended January 31, 2021 and 2020, respectively.

In December 2017, the Company issued 1,250,000 shares of restricted common stock out of the 2012 Plan to an employee at $1.59 per share, payable by a promissory note. The promissory note accrued interest at the lower of 2.11% per annum or the maximum interest rate on commercial loans permissible by law and was partially secured by the underlying restricted stock. The promissory note was considered nonrecourse from an accounting standpoint, and therefore the note was not reflected in the consolidated balance sheets and consolidated statements of stockholders' equity (deficit). Rather, the note and the share purchases were accounted for as stock option grants, with the related stock-based compensation measured using the Black-Scholes option-pricing model and recognized over the vesting period of five years. The associated shares are legally outstanding and included in the balance of Class B common stock outstanding in the consolidated financial statements during the periods in which Class B common stock was outstanding and in the balance of Class A common stock outstanding thereafter. None of these shares of restricted common stock were considered vested before the underlying promissory note was repaid. In May and June 2020, the outstanding principal amount and all accrued interest under this promissory note of $2.1 million was repaid, and 250,000 shares of restricted common stock were unvested as of January 31, 2022.

In March 2019, in connection with the acquisition of a privately-held company, the Company issued 661,635 shares of restricted common stock out of the 2012 Plan. Of the total shares issued, 215,031 shares vested on the grant date, and the remaining shares vest over four years from the grant date. The related post-acquisition stock-based compensation of $1.1 million is being amortized over the requisite service period of four years in the consolidated statements of operations. As of January 31, 2022, 130,260 shares of these restricted common stock were unvested.

Early Exercised Stock Options—Common stock purchased pursuant to an early exercise of stock options is not deemed to be outstanding for accounting purposes until those shares vest. The consideration received for an exercise of an option is considered to be a deposit of the exercise price and the related dollar amount is recorded in other liabilities on the consolidated balance sheets. The shares issued upon the early exercise of these unvested stock option awards, which are reflected as exercises in the stock option activity table above, are considered to be legally issued and outstanding on the date of exercise. Upon termination of service, the Company may repurchase unvested shares acquired through the early exercise of stock options at a price equal to the price per share paid upon the exercise of such options. There were 45,834 and 245,633 shares subject to repurchase as of January 31, 2022 and 2021, respectively, as a result of early exercised options.

Modification of Early Exercised Stock Options—In connection with the termination of a former executive officer in April 2019, certain shares of his early exercised stock options were vested immediately. The remaining early exercised stock options held by him were subject to continuous vesting through April 2020 as he continued to provide service to the Company as an advisor. The acceleration and continuation of vesting were accounted for as a modification of the terms of the original award. The incremental stock-based compensation related to this modification was $16.7 million, of which $2.7 million and $14.0 million was recognized during the fiscal years ended January 31, 2021 and 2020, respectively.

RSUs—In March 2020, the Company began granting more RSUs than options to its employees and directors. RSUs granted prior to the IPO had both service-based and performance-based vesting conditions. The service-based vesting condition for these awards is typically satisfied over four years with a cliff vesting period of one year and continued vesting quarterly thereafter. The performance-based vesting condition is satisfied on the earlier of (i) the effective date of a registration statement of the Company filed under the Securities Act for the sale of the Company's common stock or (ii) immediately prior to the closing of a change in control of the Company. Both events were not deemed probable until consummated, and therefore, stock-based compensation related to these RSUs remained unrecognized prior to the effectiveness of the IPO. Upon the effectiveness of the IPO in September 2020, the performance-based vesting condition was satisfied, and therefore, the Company recognized cumulative stock-based compensation of $55.5 million using the accelerated attribution method for the portion of the RSU awards for which the service-based vesting condition has been fully or partially satisfied. RSUs granted after the IPO do not contain the performance-based vesting condition described above, and the related stock-based compensation is recognized on a straight-line basis over the requisite service period.

RSU activity during the fiscal years ended January 31, 2022 and 2021 was as follows:

	Number of Shares	Weighted-Average Grant Date Fair Value per Share
Unvested Balance—January 31, 2020	—	$ —
Granted	9,552,687	$ 123.71
Vested	(36,436)	$ 50.71
Forfeited	(167,694)	$ 64.13
Unvested Balance—January 31, 2021	9,348,557	$ 125.06
Granted	4,025,850	$ 250.46
Vested	(3,186,218)	$ 109.44
Forfeited	(575,866)	$ 169.74
Unvested Balance—January 31, 2022	9,612,323	$ 180.08

Stock-Based Compensation—The following table summarizes the weighted-average assumptions used in estimating the fair value of stock options granted to employees and non-employees during the fiscal years ended January 31, 2021 and 2020:

	Fiscal Year Ended January 31,	
	2021	2020
Expected term (in years)	6.0	6.0
Expected volatility	37.2 %	36.9 %
Risk-free interest rate	1.0 %	2.0 %
Expected dividend yield	— %	— %

No stock options were granted during the fiscal year ended January 31, 2022.

Expected term—For stock options considered to be "plain vanilla" options, the Company estimates the expected term based on the simplified method, which is essentially the weighted average of the vesting period and contractual term, as the Company's historical option exercise experience does not provide a reasonable basis upon which to estimate the expected term.

Expected volatility—The Company performs an analysis of using the average volatility of a peer group of representative public companies with sufficient trading history over the expected term to develop an expected volatility assumption.

Risk-free interest rate—Risk-free rate is estimated based upon quoted market yields for the United States Treasury debt securities for a term consistent with the expected life of the awards in effect at the time of grant.

Expected dividend yield—Because the Company has never paid and has no intention to pay cash dividends on common stock, the expected dividend yield is zero.

Fair value of underlying common stock—Prior to the completion of the IPO, the board of directors considered numerous objective and subjective factors to determine the fair value of the Company's common stock at each meeting in which awards were approved. The factors considered included, but were not limited to: (i) the results of contemporaneous independent third-party valuations of the Company's common stock; (ii) the prices, rights, preferences, and privileges of the Company's redeemable convertible preferred stock relative to those of its common stock; (iii) the lack of marketability of the Company's common stock; (iv) actual operating and financial results; (v) current business conditions and projections; (vi) the likelihood of achieving a liquidity event, such as an initial public offering or sale of the Company, given prevailing market conditions; and (vii) precedent transactions involving the Company's shares. Since the completion of the IPO, the fair value of the Company's common stock is determined by the closing price, on the date of grant, of its common stock, which is traded on the New York Stock Exchange.

The following table summarizes the assumptions used in estimating the fair value of employee stock purchase rights granted under the 2020 ESPP during the fiscal years ended January 31, 2022 and 2021:

	Fiscal Year Ended January 31,	
	2022	**2021**
Expected term (in years)	0.5	0.5
Expected volatility	37.3% - 49.5%	60.1 %
Risk-free interest rate	0.1 %	0.1 %
Expected dividend yield	— %	— %

Stock-based compensation included in the consolidated statements of operations was as follows (in thousands):

	Fiscal Year Ended January 31,		
	2022	**2021**	**2020**
Cost of revenue	$ 87,336	$ 33,642	$ 3,650
Sales and marketing	185,970	97,879	20,757
Research and development	232,867	99,223	15,743
General and administrative	98,922	70,697	38,249
Stock-based compensation, net of amounts capitalized	605,095	301,441	78,399
Capitalized stock-based compensation	24,174	2,072	1,080
Total stock-based compensation	$ 629,269	$ 303,513	$ 79,479

As of January 31, 2022, total compensation cost related to unvested stock-based awards not yet recognized was $1.4 billion, which will be recognized over a weighted-average period of three years.

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12. Income Taxes

The components of loss before income taxes were as follows (in thousands):

	Fiscal Year Ended January 31,		
	2022	2021	2020
U.S.	$ (717,208)	$ (544,700)	$ (351,100)
Foreign	40,248	7,660	3,558
Loss before income taxes	$ (676,960)	$ (537,040)	$ (347,542)

The provision for income taxes consists of the following (in thousands):

	Fiscal Year Ended January 31,		
	2022	2021	2020
Current provision:			
State	$ 288	$ 704	$ 194
Foreign	3,417	1,388	1,400
Deferred benefit:			
Federal	—	(28)	(512)
State	—	(2)	(89)
Foreign	(717)	—	—
Provision for income taxes	$ 2,988	$ 2,062	$ 993

The effective income tax rate differs from the federal statutory income tax rate applied to the loss before income taxes due to the following (in thousands):

	Fiscal Year Ended January 31,		
	2022	2021	2020
Income tax expense computed at federal statutory rate	$ (142,162)	$ (112,778)	$ (72,984)
State taxes, net of federal benefit	35,360	14,818	(12,239)
Research and development credits	(142,544)	(56,633)	(5,805)
Stock-based compensation	(898,234)	(246,363)	6,905
Change in valuation allowance	1,159,276	391,659	83,966
Other	(8,708)	11,359	1,150
Provision for income taxes	$ 2,988	$ 2,062	$ 993

A valuation allowance has been recognized to offset the Company’s deferred tax assets, as necessary, by the amount of any tax benefits that, based on evidence, are not expected to be realized. As of January 31, 2022 and 2021, the Company believes it is more likely than not that its U.S. and U.K. deferred tax assets will not be fully realizable and continues to maintain a full valuation allowance against these net deferred tax assets.

Significant components of the Company’s deferred tax assets and deferred tax liabilities are shown below (in thousands):

	January 31, 2022	January 31, 2021
Deferred tax assets:		
Net operating losses carryforwards	$ 1,522,969	$ 479,564
Tax credit carryforwards	215,934	72,138
Stock-based compensation	88,743	49,548
Operating lease liabilities	48,682	50,834
Other	79,141	23,123
Total deferred tax assets	1,955,469	675,207
Less: valuation allowance	(1,858,730)	(599,603)
Net deferred tax assets	96,739	75,604
Deferred tax liabilities:		
Deferred commissions	(28,368)	(21,506)
Intangible assets	(15,692)	(3,755)
Net unrealized gains on strategic investments	(6,399)	—
Operating lease right-of-use assets	(48,307)	(50,343)
Total deferred tax liabilities	(98,766)	(75,604)
Net deferred tax assets (liabilities)	$ (2,027)	$ —

The valuation allowance was $1.9 billion and $599.6 million as of January 31, 2022 and 2021, respectively, primarily relating to U.S. federal and state net operating loss carryforwards and tax credit carryforwards. The valuation allowance increased $1.3 billion and $434.5 million during the fiscal years ended January 31, 2022, and 2021, respectively, primarily due to increased U.S. federal and state net operating loss carryforwards, tax credit carryforwards, deferred revenue, and stock-based compensation. The valuation allowance increased $81.1 million during the fiscal year ended January 31, 2020, primarily due to increased U.S. federal and state net operating loss carryforwards and tax credit carryforwards.

As of January 31, 2022, the Company had U.S. federal, state, and foreign net operating loss carryforwards of $5.8 billion, $4.5 billion, and $162.7 million, respectively. Of the $5.8 billion U.S. federal net operating loss carryforwards, $5.7 billion may be carried forward indefinitely with utilization limited to 80% of taxable income, and the remaining $0.1 billion will begin to expire in 2032. The state net operating loss carryforwards begin to expire in 2022. Of the $162.7 million foreign net operating loss carryforwards, $149.6 million may be carried forward indefinitely, and the remaining $13.1 million will begin to expire in 2027. As of January 31, 2022, the Company also had federal and state tax credits of $199.7 million and $88.9 million, respectively. The federal tax credit carryforwards will expire beginning in 2032 if not utilized. The state tax credit carryforwards do not expire. Utilization of the Company’s net operating loss and tax credit carryforwards may be subject to annual limitation due to the ownership change limitations provided by the Internal Revenue Code and similar state provisions. Such an annual limitation could result in the expiration of the net operating loss and tax credit carryforwards before utilization.

Foreign withholding taxes have not been provided for the cumulative undistributed earnings of the Company’s foreign subsidiaries as of January 31, 2022 due to the Company’s intention to permanently reinvest such earnings. Determination of the amount of unrecognized deferred tax liability related to these earnings is not practicable.

The following table shows the changes in the gross amount of unrecognized tax benefits (in thousands):

	Fiscal Year Ended January 31,		
	2022	2021	2020
Beginning balance	$ 19,349	$ 4,057	$ 2,407
Increases based on tax positions during the prior period	20	35	—
Increases based on tax positions during the current period	38,346	15,257	1,650
Ending balance	$ 57,715	$ 19,349	$ 4,057

There were no interest and penalties associated with unrecognized income tax benefits for each of the fiscal years ended January 31, 2022, 2021, and 2020.

Although it is reasonably possible that certain unrecognized tax benefits may increase or decrease within the next 12 months due to tax examination changes, settlement activities, or the impact on recognition and measurement considerations related to the results of published tax cases or other similar activities, the Company does not anticipate any significant changes to unrecognized tax benefits over the next 12 months.

The Company files income tax returns in the U.S. federal jurisdiction, various state jurisdictions, and in various international jurisdictions. Tax years 2012 and forward generally remain open for examination for federal and state tax purposes. Tax years 2017 and forward generally remain open for examination for foreign tax purposes. To the extent utilized in future years' tax returns, net operating loss carryforwards at January 31, 2022 and 2021 will remain subject to examination until the respective tax year is closed.

13. Net Loss per Share

The following table presents the calculation of basic and diluted net loss per share (in thousands, except share and per share data):

	Fiscal Year Ended January 31,		
	2022	**2021**	**2020**
Numerator:			
Net loss attributable to Class A and Class B common stockholders	$ (679,948)	$ (539,102)	$ (348,535)
Denominator:			
Weighted-average shares used in computing net loss per share attributable to Class A and Class B common stockholders—basic and diluted	300,273,227	141,613,196	44,847,442
Net loss per share attributable to Class A and Class B common stockholders—basic and diluted	$ (2.26)	$ (3.81)	$ (7.77)

The following potentially dilutive securities were excluded from the computation of diluted net loss per share calculations for the periods presented because the impact of including them would have been anti-dilutive:

	Fiscal Year Ended January 31,		
	2022	**2021**	**2020**
Redeemable convertible preferred stock	—	—	169,921,272
Stock options	42,043,097	64,574,656	80,903,200
Common stock warrants	—	—	32,336
Unvested restricted stock awards and early exercised stock options	426,094	987,544	3,724,593
RSUs	9,612,323	9,348,557	—
Employee stock purchase rights under the 2020 ESPP	115,201	215,707	—
Total	52,196,715	75,126,464	254,581,401

14. Related Party Transactions

In December 2020, as a minority investor, the Company made a strategic investment of approximately $20.0 million by purchasing non-marketable equity securities issued by a privately-held company (the Strategic Investee), which is partially owned by two of the holders of more than 5% of the Company's capital stock as of the time of investment, and two members of the Company's board of directors are also members of the board directors of this privately-held company. In addition, the Company has entered into immaterial customer agreements and vendor contracts with the Strategic Investee since fiscal 2016 and fiscal 2018, respectively. In November 2021, the Strategic Investee raised additional funding in an orderly transaction, at which time it was no longer considered a related party of the Company.

15. Subsequent Events

Business Combination

In March 2022, the Company entered into an agreement to acquire all outstanding capital stock of Streamlit, Inc. (Streamlit), a privately-held company which provides a framework built to simplify and accelerate the creation of data applications, for approximately $800 million (Deal Consideration), net of acquired cash and cash equivalents and subject to customary purchase price adjustments. Upon completion of the acquisition, which is subject to customary closing conditions and expected to occur in the three months ending April 30, 2022, the Deal Consideration will be paid in a combination of cash and unregistered shares of the Company's common stock (Equity Consideration). A portion of the Equity Consideration that will be issued to Streamlit's founders (Revested Shares) will be subject to revesting agreements pursuant to which the Revested Shares will vest over three years, subject to each founder's continued employment with the Company or its affiliates. The portion of the fair value of these Revested Shares attributable to post-combination services will be expensed over the remaining service periods as stock-based compensation.

Net Share Settlement of RSUs

In the three months ending April 30, 2022, the Company began funding withholding taxes in certain jurisdictions due on the vesting of employee RSUs by net share settlement, rather than its previous approach of selling shares of the Company's common stock to cover taxes upon vesting of such awards. The amount of withholding taxes related to net share settlement of employee RSUs, which is approximately $54 million for the three months ending April 30, 2022, will be reflected as (i) a reduction to additional paid-in-capital, and (ii) cash outflows for financing activities when the payments are made. The shares withheld by the Company as a result of the net share settlement of RSUs are not considered issued and outstanding, thereby reducing our shares outstanding used to calculate net income (loss) per share.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15(d)-15(e) under the Exchange Act) as of January 31, 2022. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of January 31, 2022, our disclosure controls and procedures were effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the Commission's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15(d)-15(f) under the Exchange Act). Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our management conducted an assessment of the effectiveness of the Company's internal control over financial reporting as of January 31, 2022 based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on the assessment, our management has concluded that our internal control over financial reporting was effective as of January 31, 2022. The effectiveness of our internal control over financial reporting as of January 31, 2022 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report, which is included in Item 8 of this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the quarter ended January 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, believes that our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives. However, our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item is incorporated by reference to the definitive Proxy Statement for the 2022 Annual Meeting of Stockholders, which will be filed with the SEC no later than 120 days after January 31, 2022.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference to the definitive Proxy Statement for the 2022 Annual Meeting of Stockholders, which will be filed with the SEC no later than 120 days after January 31, 2022.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item is incorporated by reference to the definitive Proxy Statement for the 2022 Annual Meeting of Stockholders, which will be filed with the SEC no later than 120 days after January 31, 2022.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated by reference to the definitive Proxy Statement for the 2022 Annual Meeting of Stockholders, which will be filed with the SEC no later than 120 days after January 31, 2022.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is incorporated by reference to the definitive Proxy Statement for the 2022 Annual Meeting of Stockholders, which will be filed with the SEC no later than 120 days after January 31, 2022.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

The following documents are filed as part of this Annual Report on Form 10-K:

a. Consolidated Financial Statements

The consolidated financial statements are filed as part of this Annual Report on Form 10-K under “Item 8. Financial Statements and Supplementary Data.”

b. Financial Statement Schedules

The financial statement schedules are omitted because they are either not applicable or the information required is presented in the financial statements and notes thereto under “Item 8. Financial Statements and Supplementary Data.”

c. Exhibits

The exhibits listed in the following Exhibit Index are filed, furnished, or incorporated by reference as part of this Annual Report on Form 10-K.

Exhibit Number	Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
3.1	Amended and Restated Certificate of Incorporation of Snowflake Inc.	8-K	001-39504	3.1	9/18/2020	
3.2	Amended and Restated Bylaws of Snowflake Inc.	S-1/A	333-248280	3.4	9/8/2020	
3.3	Certificate of Retirement.	8-K	001-39504	3.1	3/3/2021	
4.1	Form of Class A Common Stock Certificate.	S-1/A	333-248280	4.1	9/8/2020	
4.2	Amended and Restated Investor Rights Agreement by and among Snowflake Inc. and certain holders of its capital stock, dated February 7, 2020, as amended.	S-1/A	333-248280	10.1	9/8/2020	
4.3	Description of Securities.					X
10.1	Snowflake Inc. 2012 Equity Incentive Plan.	S-1	333-248280	10.3	8/24/2020	
10.2	Forms of Option Agreement, Stock Option Grant Notice, and Notice of Exercise under 2012 Equity Incentive Plan.	S-1	333-248280	10.4	8/24/2020	
10.3	Forms of Restricted Stock Unit Grant Notice and Restricted Stock Unit Award Agreement under 2012 Equity Incentive Plan.	S-1	333-248280	10.5	8/24/2020	
10.4	Snowflake Inc. 2020 Equity Incentive Plan.	S-1/A	333-248280	10.6	9/8/2020	
10.5	Forms of Notice of Stock Option Grant, Global Stock Option Agreement, and Exercise Notice under 2020 Equity Incentive Plan.					X
10.6	Form of Restricted Stock Unit Award Agreement under 2020 Equity Incentive Plan.					X
10.7	Snowflake Inc. 2020 Employee Stock Purchase Plan.	S-1/A	333-248280	10.9	9/8/2020	
10.8	Form of Indemnification Agreement entered into by and between Snowflake and each director and executive officer.	S-1	333-248280	10.10	8/24/2020	
10.9	Offer Letter by and between Snowflake and Frank Slootman, dated April 26, 2019.	S-1	333-248280	10.11	8/24/2020	
10.10	Offer Letter by and between Snowflake and Michael P. Scarpelli, dated April 29, 2019.	S-1	333-248280	10.12	8/24/2020	
10.11	Confirmatory Offer Letter by and between Snowflake Inc. and Benoit Dageville, dated August 21, 2020.	S-1	333-248280	10.13	8/24/2020	
10.12	Confirmatory Offer Letter by and between Snowflake Inc. and Christopher W. Degnan, dated August 21, 2020.	S-1	333-248280	10.14	8/24/2020	
10.13	Non-Employee Director Compensation Policy.					X
10.14	Severance and Change in Control Plan and related participation agreement.	S-1	333-248280	10.18	8/24/2020	

10.15	Cash Incentive Bonus Plan.	S-1	333-248280	10.19	8/24/2020	
10.16	Common Stock Purchase Agreement by and among Snowflake Inc., salesforce.com, inc., and Salesforce Ventures LLC, dated as of September 5, 2020.	S-1/A	333-248280	10.20	9/8/2020	
10.17	Common Stock Purchase Agreement by and among Snowflake Inc. and Berkshire Hathaway Inc., dated as of September 7, 2020.	S-1/A	333-248280	10.21	9/8/2020	
21.1	List of Subsidiaries of Snowflake Inc.					X
23.1	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm.					X
24.1	Power of Attorney (included on signature page).					X
31.1	Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) or 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) or 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1*	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2*	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.					X
101.SCH	XBRL Taxonomy Extension Schema Document.					X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.					X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.					X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.					X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.					X
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibits 101).					X

* The certifications furnished in Exhibits 32.1 and 32.2 hereto are deemed to accompany this Annual Report on Form 10-K and are not deemed “filed” for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, nor shall they be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act, irrespective of any general incorporation language contained in such filing.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: March 30, 2022

SNOWFLAKE INC.

By:	/s/ Frank Slootman
Name:	Frank Slootman
Title:	Chief Executive Officer and Chairman *(Principal Executive Officer)*

By:	/s/ Michael P. Scarpelli
Name:	Michael P. Scarpelli
Title:	Chief Financial Officer *(Principal Financial and Accounting Officer)*

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Frank Slootman and Michael P. Scarpelli, and each one of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in their name, place, and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Frank Slootman Frank Slootman	Chief Executive Officer and Director (*Principal Executive Officer*)	March 30, 2022
/s/ Michael P. Scarpelli Michael P. Scarpelli	Chief Financial Officer (*Principal Financial and Accounting Officer*)	March 30, 2022
/s/ Benoit Dageville Benoit Dageville	Director	March 30, 2022
/s/ Teresa Briggs Teresa Briggs	Director	March 30, 2022
/s/ Jeremy Burton Jeremy Burton	Director	March 30, 2022
/s/ Carl M. Eschenbach Carl M. Eschenbach	Director	March 30, 2022
/s/ Mark S. Garrett Mark S. Garrett	Director	March 30, 2022
/s/ Kelly A. Kramer Kelly A. Kramer	Director	March 30, 2022
/s/ John D. McMahon John D. McMahon	Director	March 30, 2022
/s/ Michael L. Speiser Michael L. Speiser	Director	March 30, 2022
/s/ Jayshree V. Ullal Jayshree V. Ullal	Director	March 30, 2022