Data source

The data source is from Salesforce AppExchange. Basically, we are seeking to obtain all data on the complete set of apps on AppExchange over time. The goal will be to scrape the data once per month from January 2025 to December 2026. Unfortunately, we have not been able to identify an API that would facilitate data collection from AppExchange (there is a website of AppExchange API at [https://developer.salesforce.com/docs/apis](https://nam12.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdeveloper.salesforce.com%2Fdocs%2Fapis&data=05%7C02%7Cchris.forman%40cornell.edu%7C2ff43f5dc6b04885e8b408dd31c9fab2%7C5d7e43661b9b45cf8e79b14b27df46e1%7C0%7C0%7C638721465742524776%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=g2zpG5AQ2obw%2F49faaK5f5v8HXzYVLWw9f9OTDPbLMQ%3D&reserved=0), but to our knowledge this cannot be used to scrape data from AppExchange), so the only way that we have seen to do this would be by scraping.

***Section 1: Acquire the list of companies (Data Source URL)***

1. Navigate to

<https://appexchange.salesforce.com/explore/business-needs>

A screenshot of a computer

Description automatically generated

1. Click on Business Needs
2. Click on the boxes for each of the high-level business needs
   1. Sales
   2. Marketing
   3. IT & Administration
   4. Customer Service
   5. Finance
   6. Analytics
   7. Productivity
   8. Commerce
   9. Collaboration
   10. Enterprise Resource Planning

This will yield a page that looks something like the following

A screenshot of a computer

Description automatically generated

In other words, should be able to get 5151 results. The “Show More” link will need to be engaged repeatedly to get the complete list.

This process has generated a list of 5151 companies. Next will need to collect data for each company. For example, in the screenshot above will need to click on “CloudFiles.” We will return to collection of data from individual companies in section 2.

1. We next wish to collect data based on products. Navigate away from “Business Needs” to “Products” at the top of the screen on the page <https://appexchange.salesforce.com/explore/business-needs> to products

A screenshot of a computer

Description automatically generated

1. Click on the radio buttons for each of the products
   1. B2B Commerce
   2. B2C Commerce
   3. CRM Analytics
   4. D2C Commerce
   5. Data Cloud
   6. Data Cloud for Marketing
   7. Data Cloud for Tableau
   8. Education Cloud
   9. Einstein 1
   10. Experience Cloud
   11. Financial Services Cloud
   12. Government Cloud
   13. Health Cloud
   14. Hyperforce
   15. Intelligence (Datorama)
   16. Manufacturing Cloud
   17. Marketing Cloud Account Engagement
   18. Marketing Cloud Advanced
   19. Marketing Cloud Engagement
   20. Marketing Cloud Growth
   21. [Continue for remainder of list] ….
   22. …
   23. [Ends at] Work.com

So, for B2B Commerce will look like as follows

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1. Then begin collecting data on this list of companies as described in section 2.
2. We next wish to collect data by Industries. Follow the same process. Go to <https://appexchange.salesforce.com/explore/business-needs> and select “Industries”
3. Select the check boxes for all industries. . This should lead a list like the following

A screenshot of a computer

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Then begin collecting data on companies (as elsewhere) as detailed in section 2.

1. We next wish to collect data on Salesforce Labs. Again, navigate to <https://appexchange.salesforce.com/explore/business-needs> and select “Salesforce Labs”
2. As elsewhere, click boxes for all Salesforce Lab categories. This should lead to a list like the following

A screenshot of a computer

Description automatically generated

Collect data from all companies as detailed in Section 2.

1. Collect data by impact. Again, navigate to <https://appexchange.salesforce.com/explore/business-needs> and select “Impact”
2. Choose all Impact categories

A screenshot of a computer

Description automatically generated

And collect data as detailed in section 2.

1. Last identify companies that have “Agentforce.” Again, navigate to <https://appexchange.salesforce.com/explore/business-needs>. Within the search bar type “agentforce.” This should yield a list of (roughly, as of when this doc was created on Jan 8, 2025) 28 apps. For example, see

A screenshot of a computer

Description automatically generated

As elsewhere, collect data from individual companies as in section 2 below.

The process above will likely duplicate companies, but we want to collect data from all companies and this is the only way that we see to do it.

***Section 2: Acquire data from each company (Information to be extracted)***

As an example, let us return to this search page

A screenshot of a computer

Description automatically generated

We wish to collect data on each of the following fields from each company that was found from the lists above. For example purposes, we will use the company LevelEleven above (direct link <https://appexchange.salesforce.com/appxListingDetail?listingId=a0N300000055dIBEAY&channel=sponsored-explore>)

A screenshot of a website

Description automatically generated

If we click through on Level11 we are brought to this page

A screenshot of a web page

Description automatically generated

I would like to have the following variables. To provide clarity on what we would like collected and format, will use example values from LevelEleven (but these values will obviously change for each company).

AppID: Some number generated as an ID [does not appear in screen shot]

DateCollected: Month/Day/Year collected in format MMDDYY [does not appear in screen shot, e.g. 010925]

AppName: LevelEleven – Sales Gamification and Coaching for Salesforce

CompanyName: AscentCloud LLC

AverageRating: 4.92

NumberReviews: 270

Price: Starting at $40 (text field)

Industries: Horizontal Product; Financial Services; Healthcare & Life Sciences

Business Need: Sales; Productivity; Data Visualization

Requires: Platform Cloud

Compatible With: Sales Cloud; Financial Services Cloud; Health Cloud

CompanyDescription: “LevelEleven is a sales performance management solution for gamification and coaching. Reinforce successful behaviors through personalized scorecards, intelligent goal management, automated recognition, and data-driven coaching natively within Salesforce.”

AgentforceSearch: Was the company identified by searching for Agentforce (described above)

Then we can scroll down the page and click on Overview, leading to the following screenshot

A screenshot of a computer

Description automatically generated

We would also like to collect the following variables

CompanyCity Detroit

CompanyState MI

CompanyWebAddress <https://www.ascentcloud.io/>

SocialImpact Pledge 1%

Email: [info@ascentcloud.io](mailto:info@ascentcloud.io)

Phone: (800) 932-3779

CompanyDescription: Ascent Cloud provides industry-leading solutions for sales and customer-facing teams that enhance their CRM and empower leaders to improve performance. By combining the power of our industry-leading products to drive productivity with geolocation (Geopointe) and performance management (LevelEleven), we provide an end-to-end suite to address the challenges that sales and customer-facing leaders face on a daily basis. Elevate your business with solutions crafted for the modern team.

DefaultPlan $40 USD/user/month

Next we can click on reviews, which yields the following screen shot

A screenshot of a computer

Description automatically generated

We would like to collect the following information *for each review.* In other words, for each review

Name of reviewer: saikumar atmakuri

Review valence: 5 stars

Review date: 10/23/2024

Review text: Level11 has transformed how we manage and motivate our sales teams. Its user-friendly interface makes tracking performance metrics a breeze, providing real-time insights that are both actionable and easy to understand….

Number of likes: 0

MVPBadge 0 (dummy variable indicating no badge)

RangerBadge 0 (dummy variable indicating no badge)

Top Review Badge 0 (dummy variable indicating no badge)

Next we click on More Details, which yields the following screen shot

A screenshot of a chat

Description automatically generated

Please collect the following variables:

CompatibilityRequires Platform Cloud

CompatibleWith Sales Cloud; Financial Services Cloud; Health Cloud

SalesforceEditions Professional; Enterprise; Unlimited; Force.com

Additional Requirements CRM content must be enabled…

AppVersion L11-Scorecard/23.4 23.4.0

First Release 08/26/2011

Latest Release 08/30/2024

SupportedFeatures: Native App; No Limits; Lightening Ready; Salesforce Mobile; Multiple Currencies; Community Builder; Managed Package; Salesforce Mobile

Package Contents: Custom Objects: 56; Custom Tabs: 8; Custom Apps: 1

CustomObjects 56

CustomTabs 8

CustomApps 1

Lightening Components: Global:1; App Builder: 1; Community Builder: 1

LighteningGlobal 1

LighteningAppBuilder 1

LighteningCommunityBuilder: 1

Languages: Dutch; English; French; German; Italian; Portuguese; Russian; Spanish

***Section 3: Expected output format***

This can be a text flat file where there is one file for each source of data listed in section 1, where the unit of observation will be an app-collection date.

For the example above, it might look like the following for the text file for “Business Needs”

| AppID | Date Collected | AppName | CompanyName | AverageRating | … | … |
| --- | --- | --- | --- | --- | --- | --- |
| 123456 | 010925 | LevelEleven | Ascent Cloud LLC | 4.92 | … | … |
| 123456 | 020625 | LevelEleven | Ascent Cloud LLC | … | … | … |
|  |  |  |  |  |  |  |

Thus, one record for every appID-date collected for all data except those associated with reviews. For data associated with reviews, there is a many-to-one relationship with reviews and app ID. For reviews I would create a separate table, where the key would be appID-Name of reviewer-Review date. So, a table that looks something like

| AppID | Name of Reviewer | Review date | Review valence | Review text |  |
| --- | --- | --- | --- | --- | --- |
| 123456 | Saikumar Atmakuri | 10/23/24 | 5 | Level 11 has transformed…. | … |
| 123456 | Scarlett Duque | 10/18/24 | 5 | Exceptional Support and Expertise… |  |
| … |  |  |  |  |  |
|  |  |  |  |  |  |