

Team 55 | Inter IIT Tech Meet 11.0

The Business Problem

There is an environment built for software engineers, ***but data analysts require tools and an environment tailored for them.***

- The workflow of Data Analysts/Engineers is scattered. Coding, verifying, documenting, testing, submitting pull requests, and interacting with teams through Slack are all part of the process that is chaotic.
- Lack of dedicated tools for the Data Engineers catering to their needs.
- Not a robust community for data engineers and less of an open-source environment in this space.

Instead of focusing on developing business insights, a lot of time is spent managing and tackling these problems. To simplify and improve productivity, a **centralized** solution, Paradime is an analytics operating system that integrates all of these operations together and saves up to **9% of their annual time** at work.

Industrial Background of Analytics Ecosystem

▼ Goals

- To prepare data, deploy machine learning tools, and build data models based on business logic, calculations, KPIs, etc
- To create data-driven graphics, text, and infographics.
- To design presentations and analytic applications with your discoveries.
- To publish and burst analytics narratives.

▼ Industrial Constraints

- Organizations waste billions of hours annually on manual, complex analytical tasks that can't be automated with current tools, such as data consolidation, workflow rebuilding, and multi-step transformations in Excel spreadsheets.
- Organizations manually manage complex analytics, resulting in high effort and opportunities for consolidation and cost savings.
- Need for a No-Code system to help companies automate complex analytical workflows, allowing a non-technical user to do the work of a technical team.

▼ Competitive Landscape

- **redbird.io**: Redbird empowers teams to easily automate and unify their analytics work in minutes, without writing code.

- VS Code: powerful source code editor which runs on your desktop and is available for Windows, macOS, and Linux.
- Apache Spark: open-source cluster computing framework for real-time processing.
- Airtable: easy to build powerful, custom applications. These tools can streamline just about any process.

▼ Scope

- **Data growth and proliferation:** Digitization creates high volumes of siloed data, enabling companies to improve products, services, customer service, and more through data integration.
- **Cloud and flexible consumption:** Cloud computing is emerging as a force multiplier in the data and analytics space. It boosts data and analytics, enabling growth, agility, and scalability through a shift to flexible consumption models.
- **Future of work:** Improved connectivity and cognitive tools are transforming the way we work. Technology teams are shifting from project-based to outcome-focused models, prioritizing value over services.

Pain Points of data engineers/analysts

1) App switching issue:

The lack of sufficient software structure ***forces users to toggle between various applications frequently.*** This issue is very distractive & it significantly decreases user efficiency.

Reports show that, in 65% of cases, users switched to a different app less than 11 seconds later.

2) Poor IDE structure:

The ***current code IDE structure is very inefficient*** which badly affects user experience & workflow with some of the primary issues being:

- Limited or no built-in data visualization tools
- Issues in the integration of other analytics & debugging tools
- Too much text & lack of graphical interfaces results in difficulty in understanding.

3) Community Environment:

The current community learning structure has lack ***sufficient incentives & opportunities.*** In the current system, users don't feel incentivized enough to be regular members of these communities which results in ***decreased user motivation levels*** further resulting in ***stagnant learning and growth***

▼ Benefits of providing community as a Product within Paradime.io

A community can be a powerful tool for businesses, offering a range of benefits for both the organization and its customers. By providing a space for people to connect, engage, and collaborate, businesses can foster a sense of belonging and strengthen relationships with their customers. It also provides a window for successfully identifying upsell and cross-sell opportunities.

1) Increased engagement and loyalty:

By fostering a sense of community, Paradime can increase customer engagement and build customer loyalty, leading to repeat business and positive word-of-mouth marketing.

DATA: *22% of the users believe that a strong sense of community triggers long-term loyalty.*

2) Improved customer insights:

Communities allow companies to gather feedback and insights from customers, enabling them to better understand their needs and preferences and improve their products and services accordingly.

DATA: *79 percent of customers stated in a survey that they are willing to share relevant information and experience.*

3) Increased revenue:

A strong community can help drive sales and increase revenue, as community members can recommend products to each other and serve as brand ambassadors.

DATA: *67 percent of customers are willing to pay more for a great community-based experience.*

4) Cost savings

Communities can help reduce customer support costs by allowing customers to help each other and providing a platform for self-service support.

5) Competitive advantage

Companies that provide strong communities can differentiate themselves from their competitors and gain a competitive advantage in the market.

DATA: *57 percent of the customers switched to the competitor because it provided better experience.*

SOURCE:



https://www.salesforce.com/content/dam/web/en_us/www/documents/e-books/state-of-the-connected-customer-report-second-edition2018.pdf

User Journeys



The major functions are working in the Prototype which provides the hands-on user journey experience

Prototype and User Journey

MVP 1:

```
https://www.figma.com/embed?embed\_host=notion&url=https%3A%2F%2Fwww.figma.com%2Fproto%2FNbKcGmgUsCWMU3InFQPJt8%2FParadime%3Fpage-id%3D166%253A2236%26node-id%3D166%253A4519%26viewport%3D307%252C518%252C0.03%26scaling%3Dscale-down%26starting-point-node-id%3D166%253A2237
```

MVP 2:

```
https://www.figma.com/embed?embed\_host=notion&url=https%3A%2F%2Fwww.figma.com%2Fproto%2FNbKcGmgUsCWMU3InFQPJt8%2FParadime%3Fpage-id%3D166%253A2236%26node-id%3D180%253A6738%26viewport%3D307%252C518%252C0.03%26scaling%3Dscale-down%26starting-point-node-id%3D180%253A6738
```

Solution Overview

Paradime is for builders, data engineers, and analysts who focus on their productivity. They want to build projects and derive insights for their business. They adore tools that require no setup and simply work. There is an environment built for software engineers, but data analysts require tools and an environment tailored for them.

Paradime has the ***vision to build the ultimate workspace for all your analytics***, so you are a lot less stressed and way more productive. Paradime is the operating system for analytics, using dbt as core, giving people control over their data and work efficiently.

The basic solutions are the building blocks for creating the initial environment for both MVPs. Both MVPs complement each other, devised by keeping the vision in mind.

- MVP#1 is **enhancing the experience of the code IDE** for the analytic engineers and at the same time connecting data, analytics, and business functions in a **single collaborative workflow**.
- MVP#2 is **enriching the community and marketplace experience** and giving the necessary support to the enterprise product.

	MVP #1	MVP #2
Primary Users	Built for the Enterprises, i.e., the team of data analysts/engineers.	It is driven by individuals and data enthusiasts.
Purpose	This is the primary product, providing the core IDE experience	This product is driving the community and marketplace experience (including plugins/extensions) for data analysts.

Both the MVPs contain the description details, features, and needs, backed with data, along with the user flow diagrams and wireframes.

Basic Solutions(Common to both MVP#1 & #2)

IDE

▼ Code Editor

- **Options(Menu Bar):**

This bar contains menu options like **File, Edit, Selection, Paradime Catalogs, Lineage, Go, Help, Settings**

- **Explorer:**

- Open Editor: This is the list consisting of the current running(or **active) queries**
- Repositories(Queries): Nested Folders containing documented queries segmented **under various buckets** such as Result 1, Result 2, etc.
 - Team Queries: This bucket contains the **queries that the entire team can access** or need to have access to, for individual developments.
 - My Queries: Segment containing particularly **personal queries** with a **flexible access structure**(viewable/editable, team/public, etc.)
- Timeline: The timeline dropdown contains the **track record** of all the changes made to the current query/file

- **Search:**

The search tab helps an individual **search across different files/queries** in a folder.

- **Source Control:**

Provides the individual with an ***allocated space*** to experiment without ***impacting the other member's work***. The changes then can be committed to the master repository using GitHub lite.

- **Compile/Run:**

The run button ***executes the SQL model code*** written against the current database after compiling the code

- **Schedule Run:** *Scheduling queries* to get results from the database required at a *particular time*.

- **Settings**

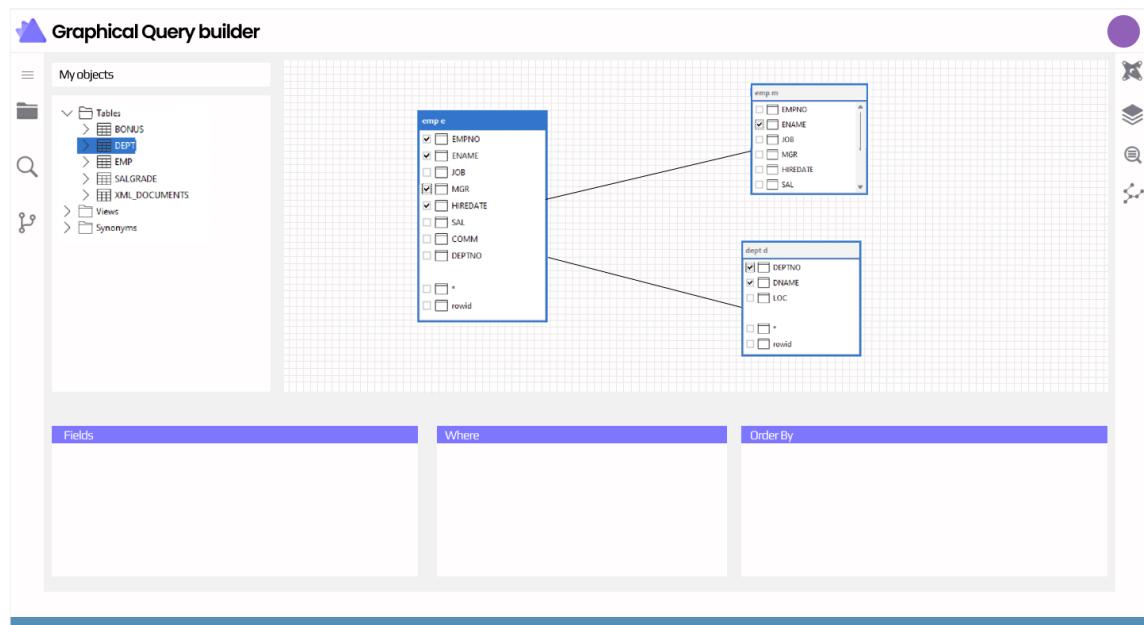
- **Terminal Window**

▼ Code Automation

- **Graphical Query Builder:**

The ability to drag and drop queries is extremely convenient. It enables users to ***build and modify queries in a visual interface by dragging tables*** directly from the schema database tree, selecting query output columns, configuring grouping and data sorting criteria, and executing advanced server-specific clauses.

DATA: *By enabling to build and modify queries through a visual interface increases the speed of professionals by 56%*



- **Code Autocomplete:**

The Autocomplete ***engine provides relevant suggestions***, while you type into the field, based on your goals.

- Autopilot Mode:
an AI pair programmer who **assists you in writing code more quickly and efficiently**. It uses context from comments and code to instantly suggest individual lines and entire functions.
DATA: *43 percent of customers love AI-driven experiences for predictive and personalized auto-suggested text.*

SOURCE:

https://www.mendix.com/wp-content/uploads/Mendix_2021_State_of_LowCode_Whitepaper.pdf

▼ Documentation

Documentation consists of options such as **Classification, Description, Column Details, Datatype, etc**

▼ DBT Core Support

An **open-source framework** for running, testing and documenting SQL queries

- **dbt run:** This is a single command that takes the collection of SQL models in the debt project, and **refreshed them all at once in the data warehouse**
- ‘**ref**’: This function allows individuals to **reference ‘other queries’** within the documented queries which also creates a **structure composed of many interdependent layers**, each doing its own job.
- **Macros:** Macros are small pieces of code that can be used multiple times when writing a query. These ‘macros’ can be documented under the macros directory.

Results and Visualization

▼ Data explorer

This consists of various options for better results visualization & easy sharing

- Data: Data tables as **query results** that can be **further classified/sorted** according to the individual needs
- Charts: Representation of query results using different **graphs and charts**
- Export: An individual can **export results** into **csv, tsv, JSON**, etc for easy transfer
- Sharing: A **flexible access structure** using which the **query result/file** can be shared in modes such as **viewable/editable, team/public**, etc.

▼ Lineage

Data lineage provides an understanding of data models formed when running a query primarily using **Directed Acyclic Graphs(DAGs)**

Database

▼ Support for the most popular databases

Work and connect with **familiar databases**, such as Azure SQL Database, Db2, MySQL, Oracle, etc.

▼ Database-specific object-type actions

Database-specific object-type actions are supported. Each object type has a distinct purpose and set of supported actions. Perform the actions by writing custom SQL or by **clicking on the object option and selecting the desired action**.

Security

▼ Data Encryption

Connect to high-security databases and only transfer data using **strong encryption** (AES-256 powered by Snowflake).

DATA: As data-value exchange and transformation increase, customer trust falls (50 percent of business buyers believe that the information is vulnerable to security breach).

▼ Set Privacy levels

Privacy levels (Public, Organizational, Private) are properly configured so that sensitive data is only viewed by authorized users.

▼ System Permissions

Set appropriate permissions such as **Allow, Deny, and Ask** to reduce the possibility of something unexpected happening.

Community

▼ Features

Feature Name	Feature Description	Need of the Feature
Forum	The forum section caters to the questions and answers of users through a community-based experience . Users can - ask questions and receive answers from the community. - upvote or downvote based on the quality of the question and answer - comment on the question as well as answer and share their views	Forum provides a space for users to engage in a discussion and exchange ideas over a topic. It also helps the users to find solutions to problems by themselves. Forum also acts as a platform to gather feedback and engage users to build a sense of community. DATA: Over two-thirds of organizations with highly involved executives are seeing their <u>communities influence 16% or more</u> of the organization's total revenue.

Feature Name	Feature Description	Need of the Feature
Blogs	The blog covers content creation related to Paradime Platform functions as well as a knowledge base. The blogs are categorized by Tags for easy accessibility and the users can comment and like the blogs that are helpful to them.	The users can follow the blogs of their favorite topics and encourage to learn as well follow the current business analytical trends. It also plays an <u>important role in Content Marketing</u> and can drive traction to the website. DATA: According to the 2018 B2B Content Marketing report, 91% of B2B organizations are using content marketing
Events	It covers details and a listing of Workshops, Sessions, and Webinars conducted by the company with or without partnerships. It attracts product managers and analysts to attend the meets and they are introduced to Paradime through these platforms. It also gives the option to register for upskilling events and hackathons.	Organizing workshops and webinars on the platform give exposure to new users/employees for the company and help them onboard to the platform. It also increases the brand visibility of the company among the community. DATA: 47% of employees stated that their extra training and education <u>helped them advance</u> within their current company.
Teams	It is a Slack workplace integration where the user can log in to their company/team workplace to smoothly share messages/code across the platforms and they remain connected in a more flexible and inclusive way supporting Paradime integrations.	Slack makes all tools work better by letting the integration of industry-leading software and custom apps right into Slack. DATA: Teams that use Slack are 49% more productive and 88% more connected to their teams.
Notebook	An application that lets you create, distribute, and display documents with equations, active SQL code, visuals, and narrative prose also, the choice to ship the notebook.	Users can showcase their work in form of a notebook, publish it, and the community members can have an intellectual discussion around it. This feature is fostering the community environment.

▼ Wireframes



Discuss, Connect and Grow with people around you

Connect with peers, maximize your analytics knowledge, and learn how to grow better with Paradime Community.



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MVP#1

▼ Description

This MVP is **devised for enterprises and focuses on the Analytics engineers and enhances their working environment.**

The focus is on:

- The meticulous integration of features within the IDE helps the engineers to code seamlessly, and also reduces the pain to switch the tabs and windows to other necessary work applications.
- The collaborative nature of the platform, where the team of engineers can work together, leverage the community marketplace environment created and get their work done tirelessly.

The engineer besides coding and analyzing is able to **discuss the work in the same chat environment (Slack), support plugins/extensions within the IDE, highlight the code** which can be automatically rectified and updated by other users, ask questions and queries from the community within the IDE, get a notification if it is answered/already answered.

Other features such as ERDs/Schemas, Shareable Dashboard, and Notebooks support the Platform

with its main objective to improve the user experience.

Feature Name	Feature Description	Need of the Feature
Profile Page	<ul style="list-style-type: none"> Information about the employee including name, email, current role, LinkedIn profile, ongoing projects, etc. is displayed. It also serves as a <i>one-place destination to access all the features</i> such as experiencing the marketplace, the community, Slacks Chats, Notifications, and plugins. 	Users get to know about their colleagues by viewing their profile pages. The user themselves are aware of the current state to work as well as their progress and tasks in an ecosystem present between the paradigm workspace, community, and features.
Real-time Collaboration	<p><i>Allowing multiple users to work together on a single query file in real-time.</i> When one user makes a change to a document, the changes are immediately reflected for all other users who have access to it. The document owner has the ability to control who has access to the document and what <i>level of access they have (Individual, Team, public & View, Edit)</i>.</p>	This feature <i>allows multiple users to collaborate in real time, making it an ideal solution for teamwork,</i> and collaboration. The immediate changes ensure that everyone has access to the most recent version of the document at all times, and can use the file accordingly. <u>DATA:</u> <i>80% of customers say a company's experience is as important as its products and services.</i>
Plugins/Extension Shortcut	<ul style="list-style-type: none"> Side Pallet for plugins helps to add new features or directly integrate them from other codes. The side pallet has further sections for <i>searching for new plugins within the IDE and installing them.</i> The already installed plugins and the recommended ones are also displayed. 	Users will have the <i>flexibility of using predefined plugins available at a much higher rate</i> rather than looking every time in the presets of the marketplace, as well as can save the most used plugins on a daily basis so as to easily facilitate much larger data sets in shorter time.
ERDs/Schemas	<p><i>Generate Visual ERDs</i> (Entity Relationship Diagram) with a layout option- Hierarchical, Organic, Orthogonal, Circular. Navigate the database visually, run actions, and open objects for more information.</p>	Proper communication is <i>key for collaboration among teams and teammates.</i> The relationships between tables and data in most databases are critical to comprehend. This feature <i>reduces communication overhead by describing tables and columns</i> so that your team understands what they mean.

Feature Name	Feature Description	Need of the Feature
Code Highlight Help Pointer - Team	<p>Highlighter/indicator for the lines of code with an option to tag the teammate/senior. • A prompt on the teammate's/seniors' slack chat, with share access to the local code file. • Code updates by the teammate/senior if needed, are reflected in the local file.</p>	The user constantly requires assistance, and copy-pasting the code over the slack channel is tedious . The primary user again has to update the changes in his local file. With this feature, the process gets partially automated and streamlined. DATA: 33%-37% of employees say the ability to collaborate and discuss with the right team makes them more loyal and improves their productivity.
In-built Helpdesk - Community	<ul style="list-style-type: none"> An error or a question is solved over the community with a direct CTA - 'Ask community'. If a similar question's answer is in the FAQ or already in the community will be displayed, else the question is posted on the Community that can be answered and solved by other users. 	Sometimes errors can be solved by the community instead of the team. Users receive a prompt within the IDE, improving their experience as they don't have to switch between windows. DATA: <i>In the US alone more than 56% of adults are accustomed to using online forums/communities for self-service according to Forrester.</i>
Integrated Chat Experience	An integrated chat experience within the IDE, powered by Slack Community Page .	The primary communication of the team happens in their Slack channel, to discuss their ongoing projects. Hence the chat has been linked with the Slack Community itself. The integration within the IDE will help the user save pain and time, by not switching from the IDE to other windows to communicate with team members, again and again .
Notebook Sharing	An application that allows you to create, share and showcase documents that contain live SQL code, equations, visualizations, and narrative text . An option to mail the Notebook as well.	This feature is essential as it could help in integrating two critical processes of documentation and coding and also provides a perspective of content sharing in a legitimate form to the team and if not confidential then community members as well.
Verified Documented Query	Option for the Senior Analysts/Project Owner to add a verified tick on a documented query.	The teammates and junior analysts will come to know about the approved and reliable source

Feature Name	Feature Description	Need of the Feature
Dashboard	<ul style="list-style-type: none"> The Dashboard is a collaborative page to add all your measurable data and generate reports. Add multiple files and compare across. Share the Dashboard among teammates' and collaborators Export and mail the insights generated. 	<p>This dashboard provides the experience to truly understand, compare and analyze the data. The core reason to transform the data is to get the business sense out of it, and the dashboard is enabling it.</p> <p>DATA: UX improvement shoots the customer experience, it rises a company's <u>KPIs (Key Performance Indicators)</u> upto 83% in conversion lift.</p>

▼ User Flow Diagrams

https://www.figma.com/embed?embed_host=share&url=https%3A%2F%2Fwww.figma.com%2Ffile%2FDK9BkiKYRxlSgFUDByA0X%2FIntegrated-chat-experience%3Fnode-id%3D0%253A1%26t%3D9wRdveT2WgOJNlbU-1

https://www.figma.com/embed?embed_host=share&url=https%3A%2F%2Fwww.figma.com%2Ffile%2FNixMZuD8HXD1TBuughm4CN%2FReal-time-collaboration%3Fnode-id%3D0%253A1%26t%3Djo7ZcFtCDrNcWco0-1

https://www.figma.com/embed?embed_host=share&url=https%3A%2F%2Fwww.figma.com%2Ffile%2FMreskwnRKvHWO0AES3riT1%2FHelpdesk-and-code-highlighter%3Fnode-id%3D0%253A1%26t%3DrVau1LgQyYC2OdQ2-1

https://www.figma.com/embed?embed_host=share&url=https%3A%2F%2Fwww.figma.com%2Ffile%2FNKnoT95UpEmRR09Rh5hnhl%2FPlugins-and-extensions%3Fnode-id%3D0%253A1%26t%3D7ZI3eVwrE3XKI2Cp-1

▼ Wireframes

Integrated chat experience - SLACK

The screenshot shows the Paradime.io interface. On the left is a sidebar with navigation icons and a schema browser for the 'world' schema, which contains a single 'city' table. The main area has a code editor titled 'Sample queries.sql' containing the following SQL:

```

1
2
3   select
4     country_code,
5     count(1)
6   from city
7   group by 1
8   limit 10;
9
10  -- Scatter chart
11  select
12    indep_year,
13    count(1)
14  from country
15  where indep_year > 1800
16  group by 1;
17
18  -- Line chart
19  with hours as (
20    select generate_series(
21      date_trunc('hour', now()) - '1 day'::interval,
22      date_trunc('hour', now()),
23      '1 hour'::interval
24    ) as hour
25  )

```

To the right of the code editor is a 'Sample Queries' section showing a scatter plot of data. Below it is a 'Classify' section with a scatter plot and classification controls. A 'Messaging' panel at the bottom right shows a list of users.

This screenshot is nearly identical to the one above, showing the same interface elements: code editor, sample queries, machine learning classifier, and messaging panel. The only difference is the content of the messaging panel, which now shows a list of messages and users: 'princee_i230 (you)', 'Architt BT', and 'Parth Stress Taker'.

Real-time collaboration

Code Editor Paradime.io powered by dbt

The screenshot shows the Paradime.io interface. On the left is a sidebar with navigation icons and a tree view of the database schema under the 'world' schema. The main area has three tabs: 'Sample queries.sql' (containing the provided SQL code), 'New terminal' (empty), and 'Sample Queries' (showing a table of 239 rows with columns 'code', 'name', 'continent', and 'region'). A top bar includes 'Run' and 'Share' buttons.

```

1
2
3   select
4     country_code,
5     count(1)
6   from city
7   group by 1
8   limit 10; Arunanshu_Sinha
9
10  -- Scatter chart
11  select
12    indep_year,
13    count(1)
14  from country
15  where indep_year > 1800 Prince_Gupta
16  group by 1;
17
18  -- Line chart
19  with hours as (
20    select generate_series(
21      date_trunc('hour', now()) - '1 day'::interval,
22      date_trunc('hour', now()),
23      '1 hour'::interval
24    ) as hour
25  )

```

Code Highlight Help Pointer - Team

Code Editor Paradime.io powered by dbt

This screenshot is similar to the first one but includes a purple callout box pointing to the '@Senior1' icon in the top right corner of the code editor tab. The rest of the interface and data are identical to the first screenshot.

```

1
2
3   select
4     country_code,
5     count(1)
6   from city
7   group by 1
8   limit 10;
9
10  -- Scatter chart
11  select
12    indep_year,
13    count(1)
14  from country
15  where indep_year > 1800
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21      date_trunc('hour', now()) - '1 day'::interval,
22      date_trunc('hour', now()),
23      '1 hour'::interval
24    ) as hour
25  )

```

In-built Helpdesk - Community

Code Editor Paradime.io powered by dbt

The screenshot shows the Paradime.io Code Editor interface. On the left, there's a schema browser for the 'world' database, displaying tables like 'city', 'country', and 'language'. In the center, a code editor window titled 'Sample queries.sql' contains the following SQL code:

```

1
2
3   select
4     country_code,
5     count(1)
6   from city
7   group by 1
8   limit 10;
9
10  -- Scatter chart
11  select
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22      date_trunc('hour', now()),
23      '1 hour'::interval
24    ) as hour
25  )

```

To the right, there's a data exploration tool with a scatter plot showing data points for 'column_4' vs 'column_3'. The interface also includes tabs for 'Explore', 'SQL', 'Data', 'Chart', 'Export', and 'Classify/Predict'.

ERDs/Schema

Code Editor Paradime.io powered by dbt

The screenshot shows the Paradime.io Entity Relationship diagram (ERD) tool. On the left, a tree view shows connections to 'Sakila H2 (dbvis)' and its schemas, including 'INFORMATION_SCHEMA', 'PUBLIC (Default)', and 'SAKILA'. Under 'Tables', there are numerous tables like 'ACTOR', 'ADDRESS', 'CATEGORY', 'CITY', 'COUNTRY', 'CUSTOMER', 'FILM', 'FILM_ACTOR', 'FILM_CATEGORY', 'FILM_TEXT', 'INVENTORY', 'LANGUAGE', 'PAYMENT', 'RENTAL', 'STAFF', and 'STORE'. The central part of the interface displays an 'Entity relationship diagram' for the 'SAKILA' schema, showing various tables connected by lines representing relationships. To the right, there's a data viewer showing a table of countries with columns 'code', 'name', 'continent', and 'region', and a messaging interface.

Notebook sharing

The screenshot shows the Paradime.io Code Editor interface. On the left is a schema browser for the 'world' database, listing tables like 'city', 'country', and 'views'. The central area is a code editor titled 'Sample queries.sql' containing the following SQL code:

```

1
2
3   select
4     country_code,
5     count(1)
6   from city
7   group by 1
8   limit 10;
9
10  -- Scatter chart
11  select
12    indep_year,
13    count(1)
14  from country
15  where indep_year > 1800
16  group by 1;
17
18  -- Line chart
19  with hours as (
20    select generate_series(
21      date_trunc('hour', now()) - '1 day'::interval,
22      date_trunc('hour', now()),
23      '1 hour'::interval
24    ) as hour
25  )

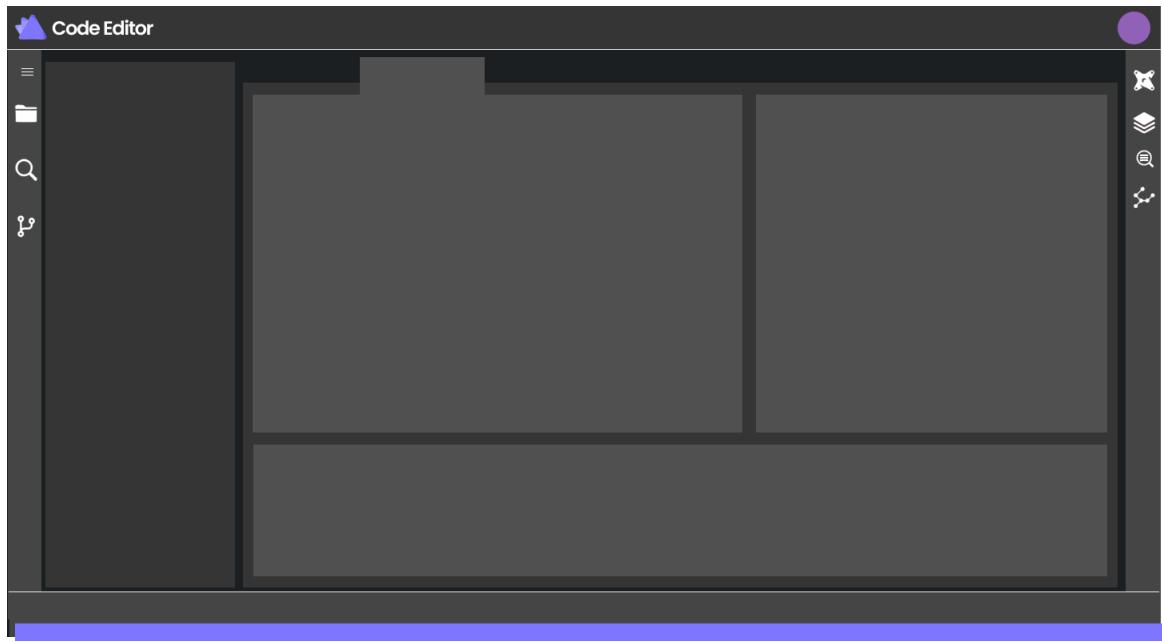
```

To the right is a data viewer showing a table of countries with columns 'code', 'name', 'continent', and 'region'. The table has 10 rows of data.

Plugins/extensions

The screenshot shows the Paradime.io Code Editor interface with a search bar at the top. Below it, there is a list of extension cards, each with a star rating and a preview image. The main workspace is identical to the previous screenshot, showing the 'Sample queries.sql' code editor and the data viewer.

Dark mode IDE



MVP#2

▼ Description

This MVP solution **mainly revolves around and is aimed toward community building & is primarily built for non-enterprise users or individual users**. The solution is based on leveraging ‘user motivation’ and ‘social validation’ to enhance the community environment and boost user engagement. Community building will be mainly done through:

- **Sense of Achievement:** Users participate in validated hackathons/competitions, and they get rating points & credits(virtual currency) which they can redeem in the marketplace. A section of community posts where they can post about their achievements/validation or contributions **gives them a sense of pride**.
- **Sense of Belonging:** Community groups & chats, contributions through plugins/extensions or through open-source projects give them a ‘**feeling of ownership**’. Contributions from the users also act as ‘**Giving back to the community**’.

Feature Name	Feature Description	Need for the Feature
Profile Page	This consists of basic information such as name, email, GitHub profile link, etc., and access to all other features as well. This page also contains installed plugins, published plugins, hackathon results, active ratings, etc.	This page helps maintain generic user data like name, contact details, etc. This also helps the user keep track of his/her progress & other updates regarding the workspace.

Feature Name	Feature Description	Need for the Feature
Community	A slack-powered community of users where individuals can ask for help, contribute to the community by publishing plugins and extensions, work on open source projects, discuss stuff, etc.	Providing individuals with a community-like environment or ecosystem to enhance community learning & increase general user engagement. DATA: <i>By using social technologies, companies can raise the productivity of knowledge workers by 20 to 25 percent.</i>
Paradime Credits	Credits are the currency of the platform. Credits can be used to get discounts on paid plugins, early access for some plugins/extensions and can avail other benefits. Users can get these credits primarily by participating in hackathons/competitions, by publishing open source projects and/or plugins/extensions	Monetization strategy for the platform so as to develop the activity into a viable business. To provide the latest plugin that is updated from time to time these credits provide the basis for the user to explore. DATA: <i>The monetizing strategy increases customer loyalty by 22.34%, data backed by 99 Firms</i>
Hackathons/Competition	Hosting hackathons & competitions revolving primarily around building more plugins & extensions. These hackathons/competitions will be backed by & marketed through different known platforms for better validation & reach The rewards will be in the forms of rating points & paradigm credits	This is primarily aimed at improving general engagements & user experience overall. This can help fulfill the scarcity of plugins, extensions and open-source contributions.
Achievements/Milestones Post	A section under community where users/individuals can publish posts of their achievements, milestones, open source projects, plugins & extensions, etc.	Validation & marketing of user's work, be it in any form, plugins, extensions or open-source projects. This feature will also aim at increasing consumer motivation.
Build your own Plugins	With Build your own plugin provides a user to contribute to the community	To grow the community, there is a need to regularly get updated with new ideas and industry trends which could be done only with the help of users could publish his/her own plugins to the community.

Feature Name	Feature Description	Need for the Feature
Plugins Marketplace	A plugin marketplace where individuals can publish or buy/installs plugin extensions for free or by using credits or money. Plugins are integrated with the code IDE itself as a side pallet that can help add new features directly.	This feature compensates for the lack of plugins/features present for the users through which they can facilitate many large datasets in short frames of time acting as a revenue source for the company at the same time.

▼ User Flow Diagrams

https://www.figma.com/embed?embed_host=share&url=https%3A%2F%2Fwww.figma.com%2Ffile%2FZc3M8rZcG3BjWgsJ6XU1uT%2FHackathons-and-competitions%3Fnode-id%3D0%253A1%26t%3DaV690rzaf5UdbTfn-1

https://www.figma.com/embed?embed_host=share&url=https%3A%2F%2Fwww.figma.com%2Ffile%2FDyn62D47xgA3uiQXIAW8i7%2FAchievements-and-milestone-post%3Fnode-id%3D0%253A1%26t%3DOdsGIuQloEV2gGX9-1

https://www.figma.com/embed?embed_host=share&url=https%3A%2F%2Fwww.figma.com%2Ffile%2Fa4QXnALLWP5xUbBDAwXRS4%2FCommunity-page%3Fnode-id%3D0%253A1%26t%3D3vIaszNNioVzoubS-1

▼ Wireframes

Hackathons/Competition



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Masterclasses, workshops, founder stories and much more to help you grow and upskill in the Product space. Over 30,000+ product enthusiasts have attended our events so far. Come, join us for the next one!

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Skill-a-thon 3.0

Ekstep Foundation

2374

Starts on
February 18 . 11:00 AM IST

[Register](#)



Skill-a-thon 3.0

Ekstep Foundation

2374

Starts on
February 18 . 11:00 AM IST

[Registered](#)



Skill-a-thon 3.0

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Skill-a-thon 3

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Community



Discuss, Connect and Grow with people around you

Connect with peers, maximize your analytics knowledge, and learn how to grow better with Paradime Community.

 Search discussions...



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Ask Question

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▲ Flutter local notifications not working in the background?

52

reactjs flutter cross-join flutter-notification

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dbt-releases This channel is for release announcements only. Please use #advice-dbt-for-power-users for ... Friday, January 27th

2 Pinned

- v1.5 milestone
- Discussion: Multi-project deployments (edited)

docs.getdbt.com Upgrading to v1.4 (latest) | dbt Developer Hub New features and changes in dbt Core v1.4 (41 kB)

13 7 7 7 5 6 7 4 2 1

bp111950 you 8 replies Last reply 6 days ago

jerco 12:17 AM This minor release of dbt-core and adapter plugins included contributions from 37 (!) members of the community. Thank you all for helping to build dbt! 🎉

agpapa akashrn5 andy-clapson @Benoit (dbt Labs) @Callum McCann (dbt Labs) @Matteo Ferrando @Daniel Murray @Darryl Ng @dave @Doug Beatty devmessias eltoclear euplus-aolalere @erica622 @ernesto @eve.johns @grace @Halvor Lund @itamar @Jared @Joe Berni @josh justblown @Christophe Oudar (Teads) @Luke Bassett @Maximilian Roos mivanovic @Niall Woodward nshuman1 @Paul Schmidt pgoslatara @Rachel Daniel (dbt Labs) timle2 @Tim @ueshin @Dean Verhey VShkabberda

33 7 3

Only certain people can post in this channel. Learn more



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Topics to explore

Twism: Your Own Coin & Rewards

Articles and resources on knowledge reuse: the process where an individual or group reuses knowledge gained and shared

Twism: Your Own Coin & Rewards

Articles and resources on knowledge reuse: the process where an individual or group reuses knowledge gained and shared

Twism: Your Own Coin & Rewards

Articles and resources on knowledge reuse: the process where an individual or group reuses knowledge gained and shared

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The total economic impact of SQL and analytics OS for the Teams



February 18, 2023

The total economic and financial impact of SQL and analytics OS for the Teams



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The total economic and financial impact of SQL and analytics OS for the Teams



▲ Flutter local notifications not working in the background lorem ipsum lorem ipsum not working?

53 Asked 2 days ago

Modified today

Viewed 4k times

[Comment](#)

Letting them compete three times (a million pops/dels each time):

```
from timeit import timeit

for _ in range(3):
    t1 = timeit('b.pop(0)', 'b = bytearray(1000000)')
    t2 = timeit('del b[0]', 'b = bytearray(1000000)')
    print(t1 / t2)
```

Time ratios ([Try it online!](#)):

```
274.6037053753368
219.38099365582403
252.08691226683823
```

Why is `pop` that much slower at doing the same thing?

[python](#) [arrays](#) [performance](#) [cpython](#) [python-internals](#)

3 Answers

[Answer](#)

Sorted by: Highest score (default) ▾

▲ When you run `b.pop(0)`, Python moves all the elements back by one as you might expect. This takes O(n) time.
53

▼ When you `del b[0]`, Python simply increases the start pointer of the object by 1.

Bookmark `In both cases, PyByteArray_Resize is called to adjust the size. When the new size is smaller than half the allocated size, the allocated memory will be shrunk. In the del b[0] case, this is the only point where the data will be copied. As a result, this case will take O(1) amortized time.`

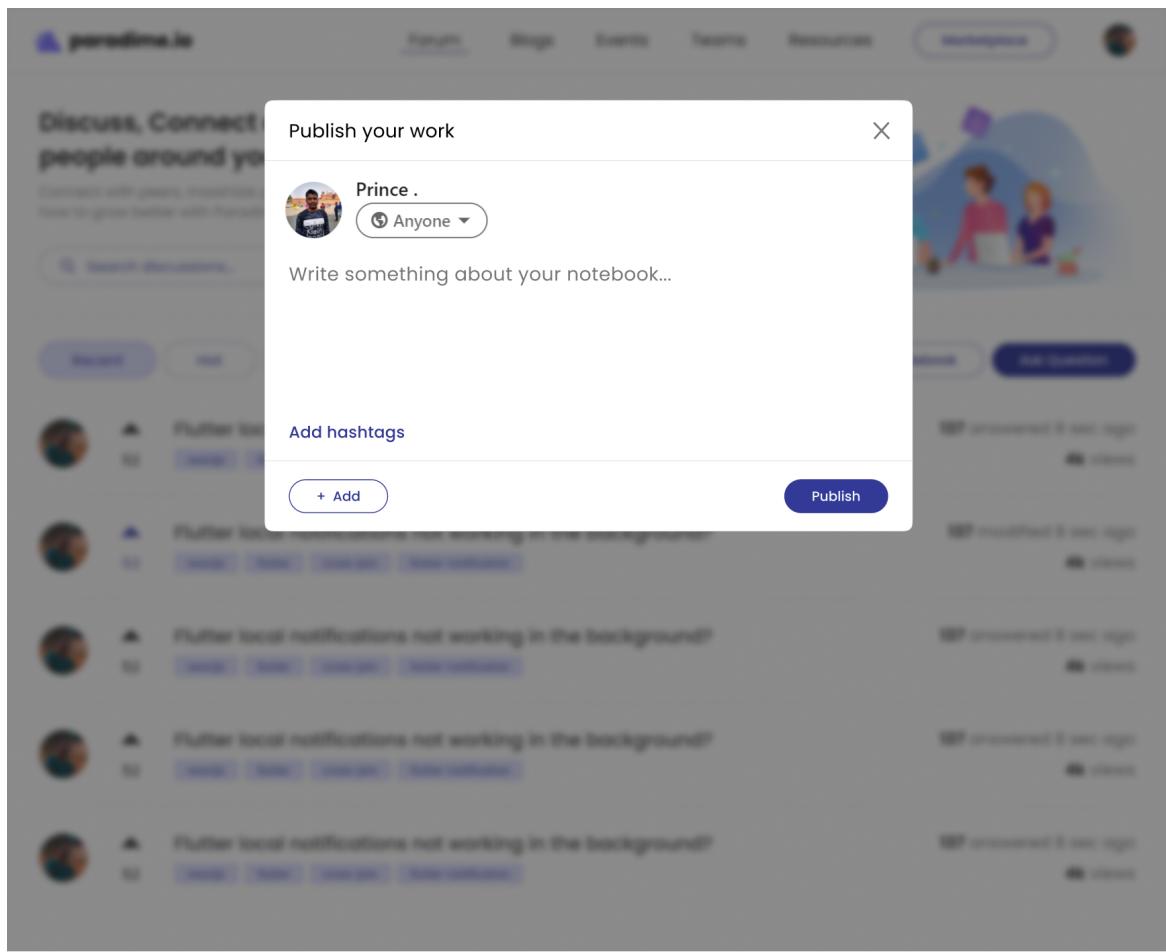
Relevant code:

[bytearray_pop_impl function](#): Always calls

```
memmove(buf + index, buf + index + 1, n - index);
```

The [bytearray_setslice_linear function](#) is called for `del b[0]` with `lo == 0, hi == 1, bytes_len == 0`. It reaches this code (with `growth == -1`):

```
if (lo == 0) {
    /* Shrink the buffer by advancing its logical start */
    self->ob_start -= growth;
    /*
        0   lo           hi           old_size
        |-----avail-----|-----tail-----|
        |           |-----bytes_len-----|
        0   new_lo       new_hi       new_size
    */
}
else {
    /*
        0   lo           hi           old_size
    */
}
```



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Profile Page

The screenshot displays the paradime.io platform interface. At the top, there is a navigation bar with links for Home, Messages (3 notifications), Paradime IDE, Repositories, Notifications, and a user icon.

The main area is divided into several sections:

- User Profile:** Shows a profile picture of "Prince", designation "Company Manager", and email "prince.manager23@paradime.co.in". Buttons for "Edit Profile" and "Logout" are present.
- For You:** A sidebar listing various categories: Community, Github Repository, Hackathon Badges, Paradime IDE, Paradime Marketplace, Community, Github Repository, Hackathon Badges, and Paradime IDE.
- Installed Plugins:** A grid of four plugin cards, all titled "Twism: Your Own Coin & Rewards". Each card includes a brief description ("Advanced Visitor Stats, Analytics and Feedback"), a "Free" status, a 4.5 rating with 16 reviews, and a small preview image.
- Published Plugins:** A grid of four identical plugin cards for "Twism: Your Own Coin & Rewards".
- Suggested Plugins:** A grid of four identical plugin cards for "Twism: Your Own Coin & Rewards".
- Projects:** A list of projects under the user's name, each with an "Ongoing" or "Completed" status indicator and a thumbnail.
- Messaging:** A messaging interface with a search bar and a list of direct messages and channels.
- Direct:** A list of direct messages with users like "princee_1230 (you)", "Archittt BT", "Parth Stress Taker", "Utkarssss", "Rohann Gold", and "Arunansu Chill".
- Channels:** A list of channels with users like "princee_1230 (you)", "Archittt BT", "Parth Stress Taker", "Utkarssss", "Rohann Gold", and "Arunansu Chill".
- Add teammates:** A button to add more team members.
- Connections:** A list of connections, all associated with "Gitlab".

The screenshot shows the paradime.io platform interface. At the top, there is a navigation bar with links for Home, Messages (3 notifications), Paradime IDE, Repositories, Notifications, and a user profile icon.

User Profile: A sidebar on the left shows a profile picture of "Prince" with the company name "Paradime". There are buttons for "Edit Profile" and "Logout".

For You: A section listing various items under "For You" including Community, Github Repository, Hackathon Badges, Paradime IDE, Paradime Marketplace, Community, Github Repository, Hackathon Badges, and Paradime IDE.

Home Content: The main area displays a profile for "Prince" with designation "Designation | Company Name" and email "prince.manager23@paradime.co.in". It includes a "LinkedIn" button and a "Dashboard" button.

Upcoming Hackathons: A grid of three cards for "Skill-a-thon 3.0" by Ekstep Foundation, each starting on February 18 at 11:00 AM IST. Each card has a "Register" button.

Completed Hackathons: A grid of three cards for "Skill-a-thon 3.0" by Ekstep Foundation, each starting on February 18 at 11:00 AM IST. Each card has a "Register" button.

Rating Points: Shows 1256 rating points with a "View Details" link.

Paradime Credits: Shows 631 credits with a "Redeem" link.

Marketplace: Buttons for "Marketplace" and "Community".

Projects: A dropdown menu.

Messaging: A search bar for messages.

Plugins: A section showing installed, published, and suggested plugins. One plugin, "Twism: Your Own Coin & Rewards", is highlighted as free with a 4.5 rating.

Direct and Channels: A list of team members including "princee_1230 (you)", "Architt BT", "Parth Stress Taker", "Utkarssss", "Rohann Gold", and "Arunansu Chill". There is also a "+ Add teammates" button.

Plugins



Build and Publish your own awesome plugins and extensions

Build tools and extensions to improve your workflow across all analytics data transformations for the rest of the paradigm

 Search Docs...[Build New](#)[Publish Yours](#)

Create Publisher

Sign up to publish & manage extensions in this Marketplace. By proceeding, you agree to the [Visual Studio Marketplace Publisher Agreement](#).

Login details

Logged in as prince.student.che20@iitbh.ac.in in the directory Indian Institute of Technology (BHU), Varanasi.

Basic information

Name * 

 Name of the publisher

ID * 

 Unique publisher identifier

Verified domain ^

Verify ownership of a domain that affirms your identity or brand to become a verified publisher. Learn about [verifying ownership of a domain](#).

Domain name 

 Ex: https://microsoft.com Verify

About you ^

▼ Resources Required/ Technical Requirements

Resources Required:

▼ People:

1. Marketing Team: The marketing team is required to facilitate the calls and converge with the user as they turn out to be the initial point of conversation with the user.
2. Technical Team: The tech team should be comprised of a data engineer so as to interpret the metrics of the application and 2 web developers so as to update with the new coming in the front end and the back end.
3. Helpdesk: They could be generalists who could be a sub-section of the marketing team and solve the doubts as well as can take up the calls of the user.

▼ Functional Requirements:

1. **Server** : AWS EC2 (highly used in the market)
2. **Payment Gateway**: PayPal (**43.85%** market share and 429 million active users)

Technical Architecture Diagram:

https://www.figma.com/embed?embed_host=notion&url=https%3A%2F%2Fwww.figma.com%2Ffile%2FstJokYAJ88iKypIhHtQZRM%2FParadime%3Fnode-id%3D0%253A1%26t%3DSBgKLjqdzuLk65oz-1

Execution Plan

Trello

Your browser was unable to load all of Trello's resources. They may have been blocked by your firewall, proxy or browser configuration. Press Ctrl+F5 or Ctrl+Shift+R to have your browser try again and if that doesn't work, check out our troubleshooting guide .

 <https://trello.com/b/MpuJN3xg/kanban-template>

Roadmap

Aa Name	Assign (People)	Attachments	Due	Label	Status
<u>Overall code IDE:</u> <u>Integrated Slack,</u> <u>Integrated Plugins</u>			@February 20, 2023 5:00 PM		Testing
<u>Overall code IDE:</u> <u>Integrated Slack,</u> <u>Integrated Plugins</u>			@February 28, 2023 5:00 PM		Market Launch
<u>Community Page:</u> <u>Forum, blogs, events,</u> <u>team & resources</u> <u>Marketplace: Explore &</u> <u>build your own page</u>			@March 7, 2023 5:00 PM		Testing

Aa Name	Assign (People)	Attachments	Due	Label	Status
<u>Code IDE: Notebook Integration, ERD/schema, verified document query, ask community, CTA(helpdesk)</u>			@March 15, 2023 5:00 PM	Market Launch	
<u>Flexible Access feature(share), code highlight help pointer(team)</u>			@March 15, 2023 5:00 PM	Market Launch	
<u>Overall code IDE: Integrated Slack, Integrated Plugins, Notebook, Flexible access feature(share)</u>			@February 13, 2023 5:00 PM	Design	
<u>Community: Ask questions, post achievements/milestones & projects</u>			@March 26, 2023 5:00 PM	Market Launch	
<u>Community Page: Forum, blogs, events, team & resources</u>			@February 16, 2023 5:00 PM	Design	
<u>Marketplace: Explore & build your own page</u>			@February 21, 2023 5:00 PM	Design	
<u>Profile Page & Dashboard</u>			@March 26, 2023 7:38 PM	Market Launch	
<u>Profile Page, pricing update in landing page</u>			@February 24, 2023 5:00 PM	Design	
<u>Code IDE update: code highlighting help pointer(team), ask community, CTA(helpdesk), ERD/schema, verified document query</u>			@February 28, 2023 5:00 PM	Design	
<u>Community: Publish Notebook, ask questions, post achievements/milestones & projects</u>			@March 5, 2023 5:00 PM	Design	
<u>Dashboard</u>			@March 10, 2023 7:38 PM	Design	

Aa Name	Assign (People)	Attachments	Due	Label	Status
<u>Overall code IDE:</u> <u>Integrated Slack,</u> <u>Integrated Plugins</u>			@February 18, 2023 5:00 PM		Code
<u>Community Page:</u> <u>Forum, blogs, events,</u> <u>team & resources</u>			@February 20, 2023 5:00 PM		Code
<u>Community Page:</u> <u>Forum, blogs, events,</u> <u>team & resources</u>			@February 24, 2023 5:00 PM		Testing
<u>Marketplace: Explore & build your own page</u>			@February 24, 2023 5:00 PM		Code
<u>Marketplace: Explore & build your own page</u>			@March 2, 2023 5:00 PM		Testing
<u>Code IDE: Notebook Integration,</u> <u>ERD/schema, verified document query, ask community</u> <u>CTA(helpdesk)</u>			@March 2, 2023 5:00 PM		Code
<u>Code IDE: Notebook Integration,</u> <u>ERD/schema, verified document query, ask community</u> <u>CTA(helpdesk)</u>			@March 8, 2023 5:00 PM		Testing
<u>Flexible Access</u> <u>feature(share), code highlight help pointer(team)</u>			@March 8, 2023 10:44 PM		Code
<u>Community: Ask questions, post achievements/milestones & projects</u>			@March 14, 2023 5:00 PM		Code
<u>Flexible Access</u> <u>feature(share), code highlight help pointer(team)</u>			@March 14, 2023 5:00 PM		Testing
<u>Profile Page & Dashboard</u>			@March 20, 2023 7:38 PM		Code

Aa Name	Assign (People)	Attachments	Due	Label	Status
<u>Community: Ask questions, post achievements/milestones & projects</u>			@March 20, 2023 7:38 PM		Testing
<u>Profile Page & Dashboard</u>			@March 24, 2023 7:38 PM		Testing

▼ Pricing Model

For Enterprises Product (MVP#1):

- Free 7-Day trial Plan

Pricing Chart

Model	Price (Monthly)	Price (Yearly)	Access
Starting (For a single person or a small team)	\$99	\$999	<ul style="list-style-type: none"> • Up to 5 developers • Query SQL • Code IDE • Graph lineage • Unlimited Bolt schedules • All dev tools, schedulers, keymaps, storage, git repos, Slack • One dashboard integration • One dbt repository • In-app, email and Slack support
Growing (For teams experiencing increased difficulties in productivity due to the growing number of tools and stakeholders involved.)	\$149 + \$25/per user thereafter	\$1999 + \$220/per user thereafter	<ul style="list-style-type: none"> • Everything on Starter plan • 6 or more developers • Unlimited integrations • In-app, email and Slack support • Google SSO, Microsoft SSO • Multiple dbt repositories
Scaling (For teams who want scale up by optimizing their analytics process across the organisation.)	Contact Sales	Contact Sales	<ul style="list-style-type: none"> • Everything on Growth plan • 1 or more developers, no minimum seats • In-app, email and Slack support • Okta, SAML 2.0 • Data residency with data centres in US and multiple EU locations • Multiple dbt workspaces

For Individuals (MVP#2):



The Community can be accessed by everyone for free, participate in the hackathons and contribute to the projects, and be part of an open-source environment.

▼ Note

Tier Based Pricing Model is used because:

1. Easier for users to calculate how much they'll pay based on the headcount using the product.
2. It appeals to the users and nudges the user to buy the product
3. Usage-based pricing and product-led growth tend to go hand-in-hand. Since customers don't have to sign an upfront contract or hand over a substantial budget to get started, they can begin with a small amount of usage, and quickly scale up as they receive more value from your product.

The Price model is accounted for the previous pricing model suggested by Paradime, and the close competitors in this space.

▼ Metrics and KPIs

North Star Metric	No of Business Onboarded	No of business onboarded is the ultimate aim of the Paradime and earn revenue out of it. Therefore to check the growth of the company the number of companies
-------------------	--------------------------	---

Goal	Metric	Explanation	Calculation
Awareness	Engagement rate in the community	The engagement rate is a measurement of user interactions with the content created by members of a community.	$((Views+Shares)/Total\ users)*100$
	Search volume data on the internet	Search volume is a metric that shows how many people are searching for a particular query.	

Goal	Metric	Explanation	Calculation
Acquisition	# Sales calls requested every week	Tracking new leads by the source of calls can help to note the awareness of the product	$(\# \text{ calls week2} - \# \text{ calls week 1}) * 100 / \# \text{calls week 1}$
	Number of sales calls converted to customers per week	The purpose of these metrics is to help you objectively measure the success of your awareness — and the teams that run them—in converting leads into customers.	# of customers/# of calls *100
Activation	Logins per month	The number of logins helps to identify different kinds of userbase that are using the interface	$(\# \text{ of login in month 2} - \# \text{ of login in month 1}) * 100 / \# \text{ of login in month 1}$
	Number of plugins used	helps to know about the activation as well as the engagement of the user in the entire webpage. #	# of plugins clicked per day
Engagement	Helpdesk - Community Questions Posted	The number of community discussions and the topics/questions that have been posted are gauged. This shows how engaged are your members.	# of questions posted per day
	Churn Rate	Customer churn rate is the percentage of a company's total customers that stop doing business with the company over a specified period of time.	$(\# \text{of lost customers} / \# \text{ of total customers at start}) * 100$
Retention	Number of commits done by the user per week	The number of commits metric is used to find and locate the user workflows	$(\# \text{ of difference between users of week 1 and 2} / \# \text{ of week 1}) * 100$

Goal	Metric	Explanation	Calculation
	DAU/MAU	Daily active users (DAU), and monthly active users (MAU) all represent, as the names suggest, measures of active usage inside the product.	# of unique new users + # of unique old users
Revenue	Gross Profit Margin	Gross profit margin is metric analysts use to assess a company's financial health by calculating the amount of money left over from product sales after subtracting the cost of goods sold	# of percentage of sales
	Customer Lifetime Value	It indicates the total revenue potential from a customer .	# of customer value * # of average customer lifespan

▼ Future Plan (Next Steps Beyond MVP)

Features

Some of the features that would be added later on with time & technological innovations

Features	Purpose
One Click Classifier/Predictor: In-built ML-integrated models are used to classify or predict the unknown value. This is primarily required in circumstances with training datasets where classification/prediction is required.	To integrate the processes of data transformation & analytics(ML) in the platform itself primarily to enhance user experience
Auto-Sync: Real-time synchronization of data in SQL database and the older models, if required, can be accessed through version history. Changes can be represented through colours (green & red) if enabled the ‘show changes’ mode.	To solve the pain point of the continuous & repeated manual synchronization
Open-AI-based Chatbot: Helpdesk consisting of an open AI-integrated chatbot which will have answers modulated through the help of machine learning modules & artificial intelligence.	The feature aims at contributing towards creating a very flawless user-friendly helpdesk structure .

▼ Wireframes

This wireframe illustrates a data analysis environment. On the left, a sidebar displays a schema browser with tables like 'city' and columns such as 'id', 'name', 'country_code', and 'population'. A central area contains a code editor window titled 'Sample queries.sql' with the following SQL code:

```
1 select
2   | country_code,
3   | count()
4   from city
5   group by 1
6   limit 10;
7
8   — Scatter chart
9   select
10  | indep_year,
11  | count()
12  from country
13  where indep_year > 1800
14  group by 1;
15
16   — Line chart
17  with hours as (
18    select generate_series(
19      date_trunc('hour', now()) - '1 day'::interval,
20      date_trunc('hour', now()),
21      '1 hour'::interval
22    ) as hour
23  )
24
25 )
```

To the right, there are two main analytical components: a 'Predict' section featuring a scatter plot with data points colored by class (blue, red, green) and a 'Classify' section showing a scatter plot with points labeled 'Correct' and 'Incorrect'. Buttons for 'Run', 'Share', and 'Explore' are located at the top right.

This wireframe shows a similar data analysis interface. The schema browser on the left is identical. The code editor in the center contains the same SQL queries as the first wireframe. To the right, the 'Predict' and 'Classify' sections are present, along with a 'Messaging' sidebar on the far right. The messaging sidebar includes a search bar, direct messages, and channels, with recent participants like 'princee_1230 (you)', 'Archit B T', 'Hey need help.', and 'Porth Stress Taker' listed.

▼ Data Contracts

Data contracts are set of requirements and agreements from the business consumer with the help of which models can be created and using analytical tools only those data will be seeked which are actually needed rather than big junks of data.

Objective: To set goals, commit to compliance, reduce time & resource wastage and deliver value to the business and its end users.

Operation Structure:

The code IDE will request specific sets of data from the pre-processed database.

These requests will be formed & backed by:

- Business & analytics demand
- The documented query & lineage models
- Integrating ML & other analytics tools

▼ Business Marketing Structure

Implementation of an improved marketing structure aimed at enhancing various buckets under the consumer funnel through different channels.

- **Business Outreach:** Reaching out to companies with the primary goal of asking them to contribute to the paradigm ecosystem with their open source projects for the community.
- **Sponsoring Fests/Events:** Sponsoring various events, hackathons & talk shows mainly revolving around the pros of dbt & paradigm community to cater to a larger audience.
- **Model referral Structure:** Implementation of a trained model of referrals formed on the basis of various parameters. The referral structure can help increase the awareness of the platform to roots across various channels.

▼ Incentive Design Structure

Motivation: Within the characteristics of consumers, which include different buying behaviour, existing demography, and retention structures, the variation is immense. Through ML decision-making models, based on different parameters, a largely improved predictive incentive design structure can be created.

Affected By: The general incentive design as backed by multiple primary interactions with users and domain experts, will be strongly affected by the identified consumer behavior

- through demographics
- previous response on incentives (time taken to redeem the last coupon, no. of coupons received, referrals made)
- externalities through consumer-centric spaces (Consumer churn rate), and

- internal metrics of the company (incentive budget, gross profit in unit economics, and company motives for incentive).

These would have a primary linkage to the output parameter, however, some other factors that also influence the incentive choice significantly would be linked to these via a secondary node, like surface metrics and user behavior.
