



PRD (Product Requirement Document)

Business Problem



The purpose of the community/app marketplace experience for Paradime Code IDE is to enhance the productivity and efficiency of analytics engineers by providing a convenient and centralised platform for accessing resources and support.

The product aims to solve the problem of having limited resources available within the Code IDE, making it difficult for analytics engineers to seek help, showcase their work, and discover new plugins.

The marketplace will provide a platform for analytics engineers to:

1. **Ask for contextual help from within the Code IDE:**

By integrating a community-based help system into the Code IDE, analytics engineers can easily seek help and advice from other users who may have faced similar challenges.

2. **Showcase and publish their work to the community:**

The marketplace will provide a platform for analytics engineers to showcase their work and share it with the community. This will allow other users to discover and use their plugins and extensions.

3. **Discover and try plugins from the Code IDE:**

The marketplace will provide a centralised location for users to discover and try new plugins making it easier for them to find the tools they need to enhance their work.

Benefits of providing community as a product within Paradime



Providing a community-based product within Paradime has several benefits, including:

1. Improved Productivity:

By integrating a community-based help system into the Code IDE, analytics engineers can quickly seek help and advice from other users, reducing the time and effort required to find answers and resolve issues.

2. Increased Collaboration:

The marketplace provides a platform for analytics engineers to share their work with the community, promoting collaboration and innovation among users.

3. Access to a Wide Range of Tools:

The marketplace allows users to discover and try new plugins, providing them access to a broader range of tools and resources that can help enhance their work.

4. Enhanced User Experience:

The marketplace provides a centralized and convenient location for users to access resources and support, making the Code IDE a more efficient and user-friendly tool.

5. Increased User Engagement:

By providing a platform for users to engage with each other and share their work, the marketplace helps foster a sense of community and encourages users to participate in the development of the Code IDE actively.

6. Better Insights:

The marketplace provides valuable data and insights about user behavior and preferences, which can be used to inform future development and improve the product.

7. Improved Code Quality:

By using code snippets in the marketplace that have been tested and reviewed by other users, analytics engineers can be confident that the code they use is of high quality and will work as expected.

Overall, the community/app marketplace experience has the potential to provide numerous benefits to both users and the company, helping to make the Code IDE a more productive and efficient tool for analytics engineers.

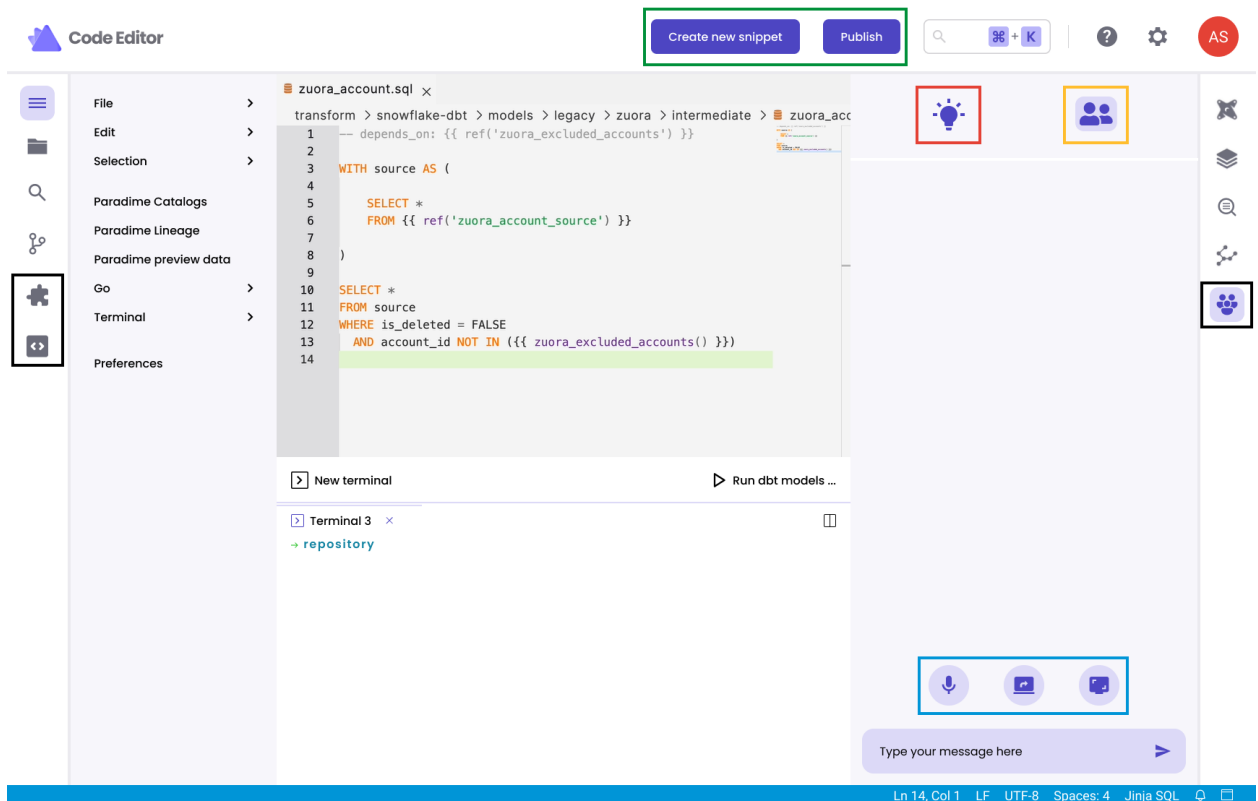
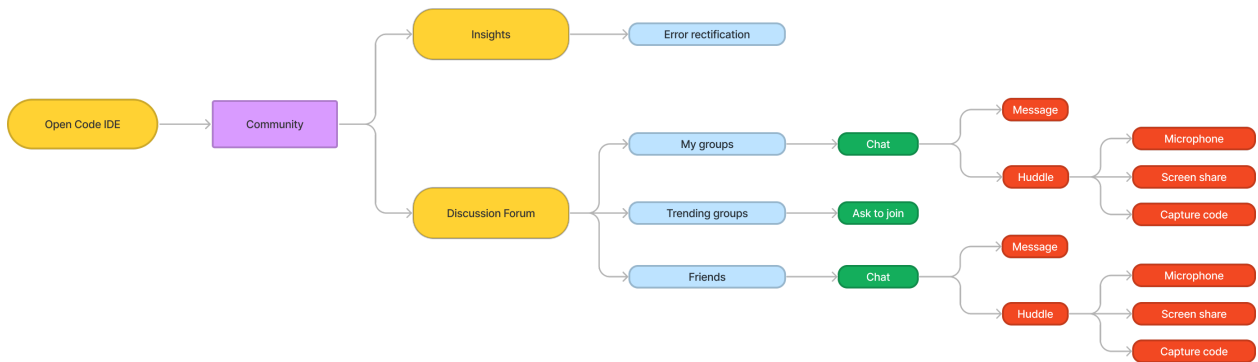
Proposed MVP Solution #1

Improvement of Code IDE

We have added some new features to improve engagement in Code IDE

- Join a **discussion forum** and get contextual help from groups or friends
- Get **insights** on your code
- Create a **new snippet** and **publish your code** as projects or plugins
- Added **icons to directly navigate** to your market place

User flow diagram



Detailed explanation of the features added

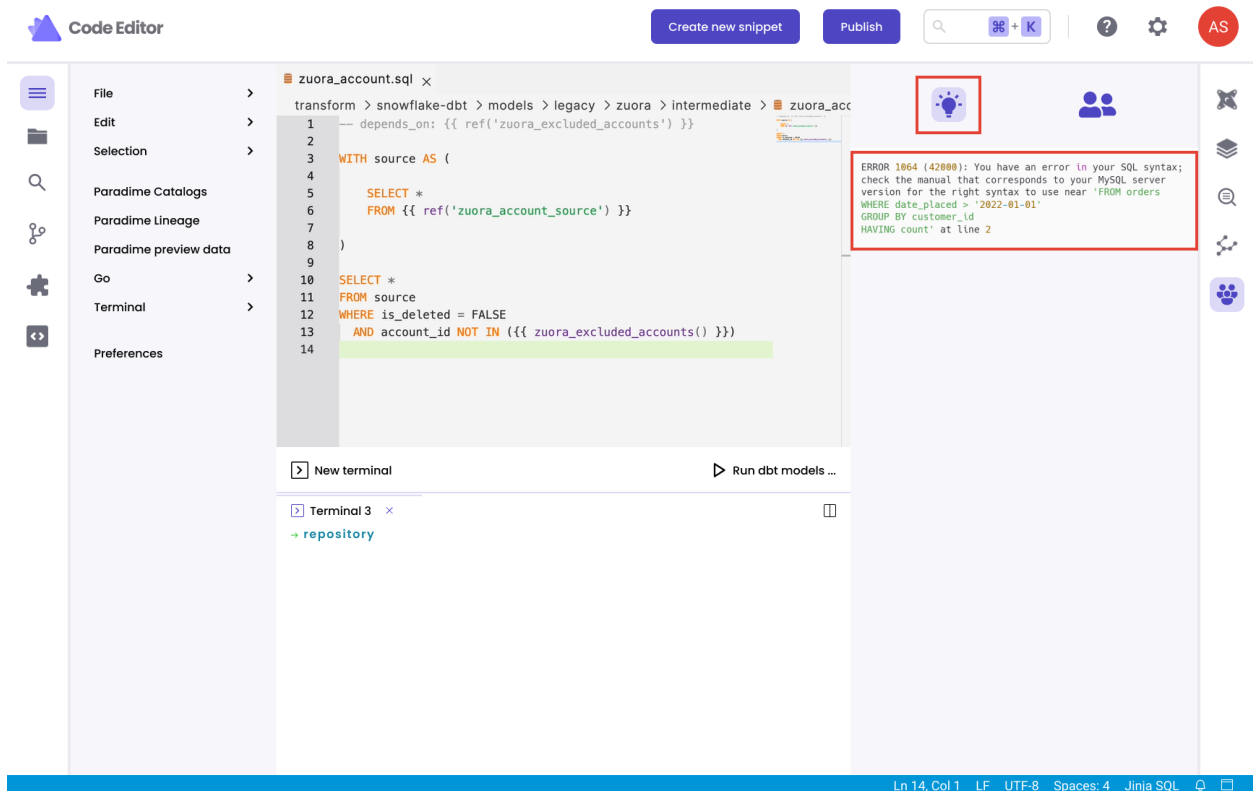
Insights



Insights in Paradime Code IDE can help analytics engineers in multiple ways. By providing actionable insights, it can streamline the data modeling process, reduce time spent on debugging. The insights can provide:

- **Performance metrics:** It can help identify bottlenecks in the data pipeline and suggest ways to optimize it.
- **Code Quality:** Insights can provide feedback on the quality of the code, including best practices, code style, and optimization suggestions.
- **Data Quality:** Insights can identify data issues and suggest ways to resolve them, such as data completeness, missing values, and outliers.

By integrating insights into the Paradime Code IDE, analytics engineers can be empowered to make better decisions, reduce time to market, and ultimately deliver better results to their customers.

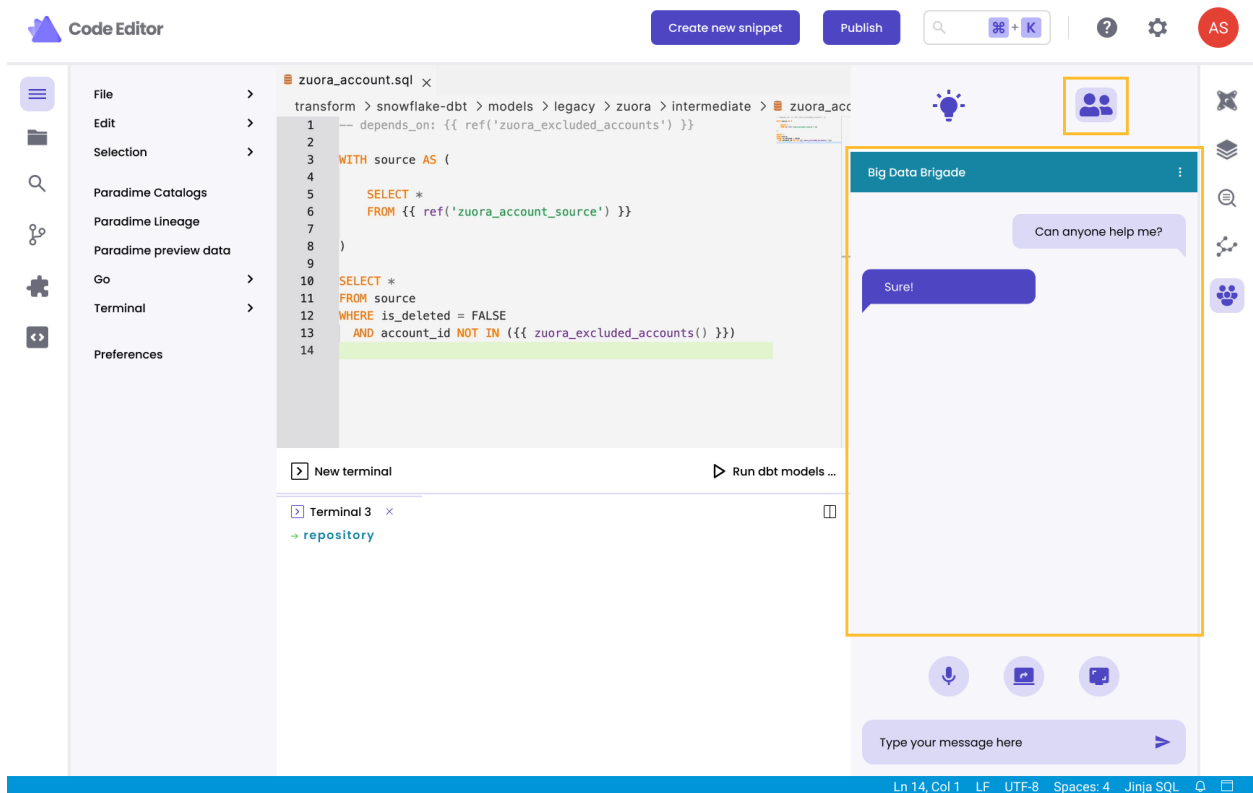


Discussion Forum

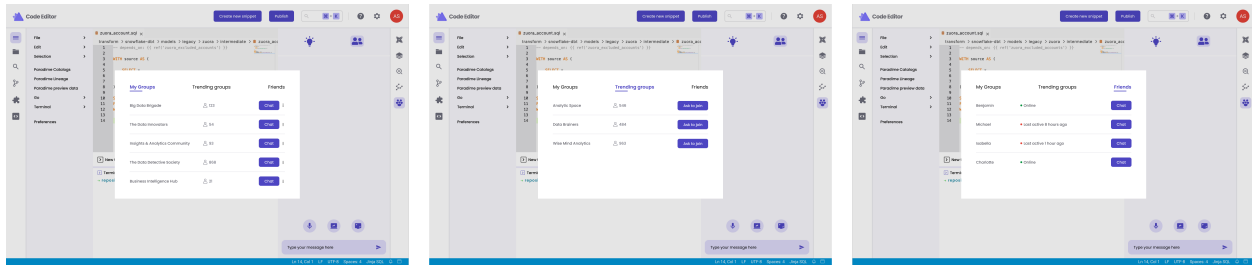


Here are some key points on how a discussion forum can provide contextual help in the Paradime Code IDE:

- **Centralized platform:** A discussion forum provides a centralized platform where users can ask questions and share knowledge by joining groups. This makes it easier for users to find relevant information when they need it.
- **Active community:** An active community of users who are knowledgeable about the Paradime Code IDE can provide quick and accurate answers to questions.
- **User reputation system:** A reputation system for users can incentivize helpful and informative contributions and provide a means of distinguishing high-quality answers from low-quality ones.
- **Contextual help:** By including information about the specific context in which the question is being asked, users are more likely to receive targeted and relevant answers.



After you click on the Groups icon (highlighted in yellow), these are some options you will get:



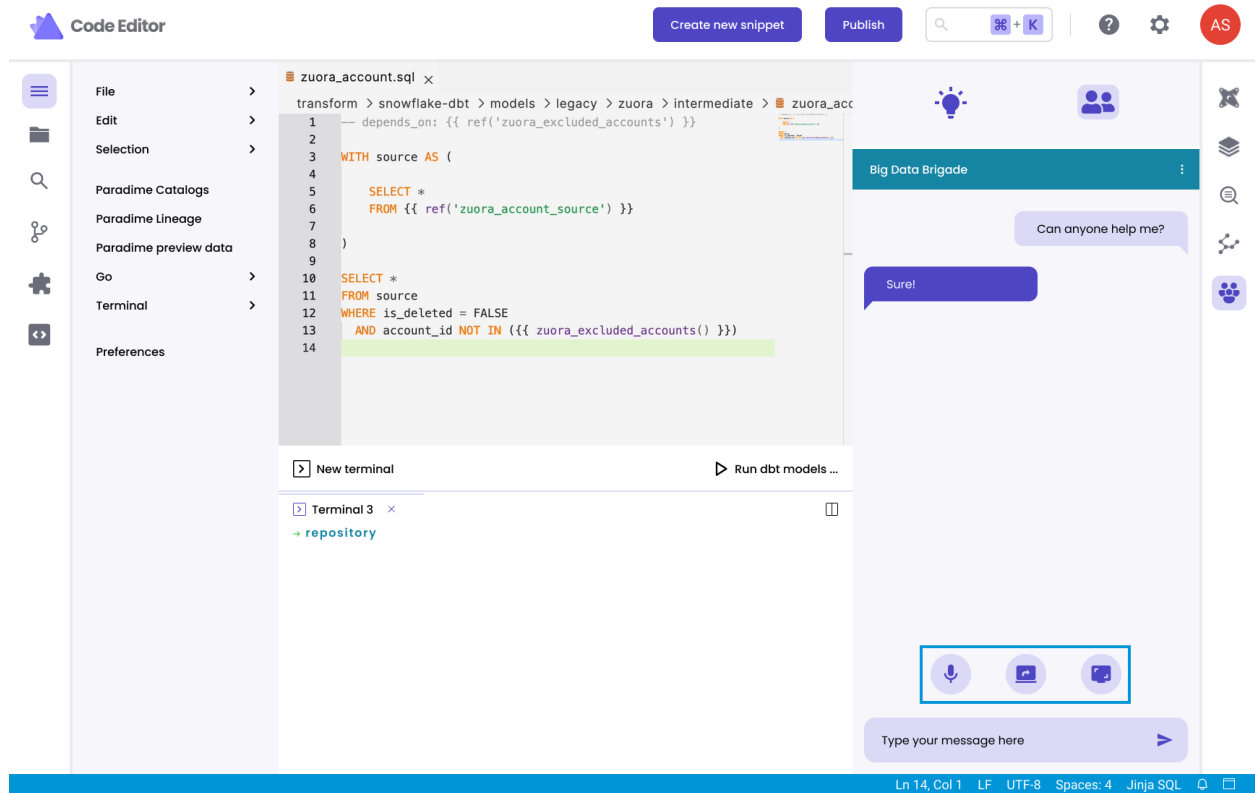
Huddle



Huddle feature can allow real-time collaboration between users within the Paradime Code IDE.

- The **microphone** feature allows voice communication between users of a group, enabling them to discuss code and troubleshoot problems together.
- The **screen share** feature allows one team member to share their screen with others, providing visual aid for troubleshooting or demonstrating a particular code feature.
- The **capture** feature allows team members to take screenshots or record their screen for later reference, enabling them to revisit discussions or solutions that were arrived at during the session.

By providing real-time collaboration, voice communication, visual aid, and a record of discussions and solutions, the huddle feature in the Paradime Code IDE can greatly enhance the ability of users to provide contextual help to one another.

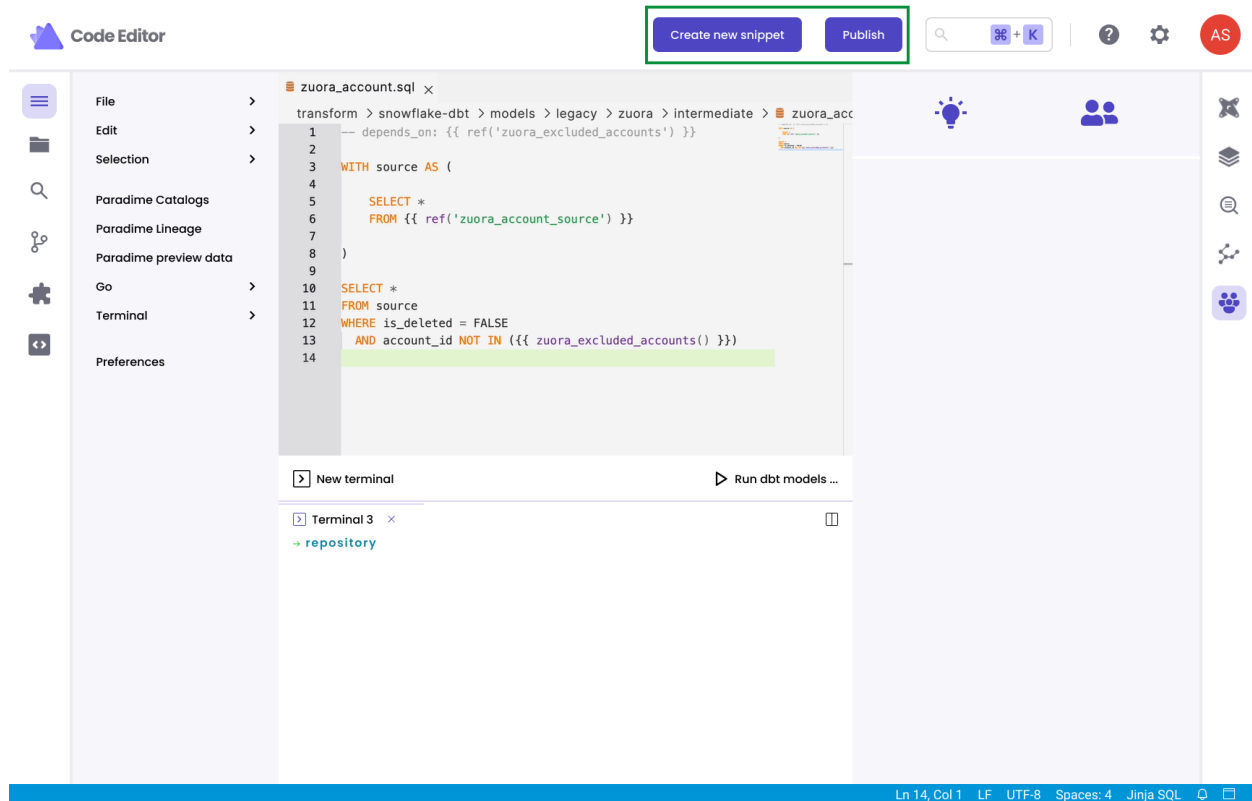


Create snippet and publish



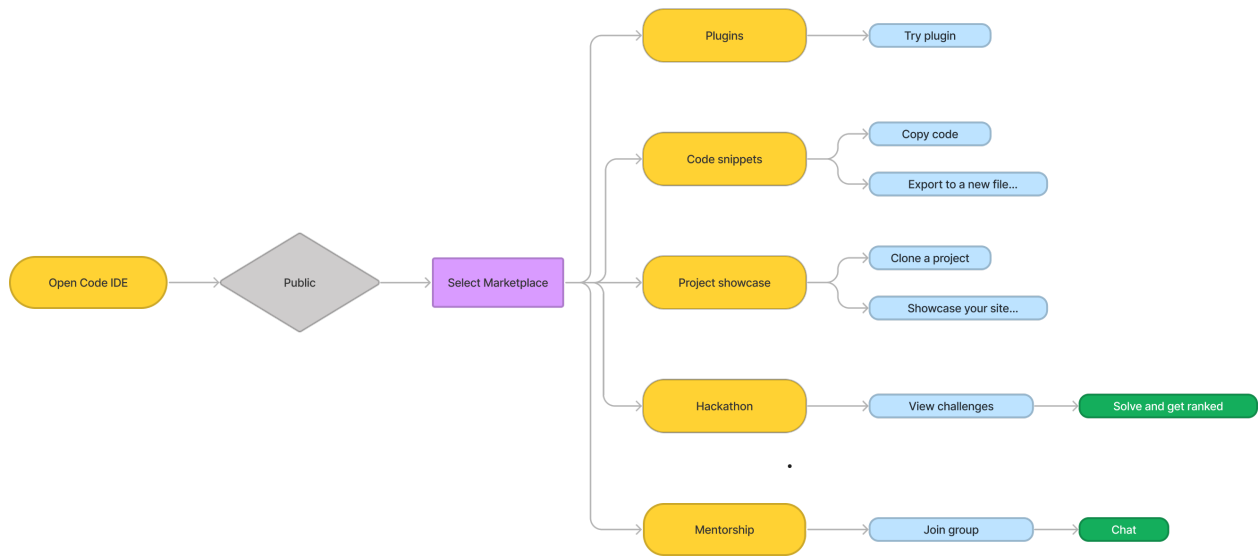
The "Create Snippet and Publish" feature in the Paradime Code IDE allows developers to create reusable code snippets that can be shared with others within the team and within the Marketplace. This can be used in the following ways:

- **Code Optimization:** Developers can publish their optimized code snippets for others to use and improve their own work and also for their team as well.
- **Collaboration:** By sharing code snippets, developers can collaborate and build on each other's work, creating new and better solutions.
- **Knowledge Sharing:** Code snippets can be used to share knowledge and best practices, making it easier for others to learn new techniques and technologies.
- **Problem Solving:** Sharing code snippets can help others solve specific problems they are facing, reducing the time and effort needed to find a solution.
- **Standardization:** By sharing code snippets, organizations can standardize the way they approach certain problems, improving the overall quality and consistency of their work.
- **Publish** the code in form of plugins or complete project.



Proposed MVP Solution #2

User flow diagram



Building a Marketplace

You will be in your personal Code IDE initially but you can navigate to marketplace by clicking on the profile icon on the top right corner.



Make the Paradime shift

The operating system for analytics

onboard -> query data -> build dbt models -> check lineage -> go to prod
no context switching - no tool creep - no time wasting



Plugins



Plugins in a marketplace can help users of Paradime in several ways:

- **Enhance functionality:** Plugins can make it easier for users to complete their tasks and perform their work more efficiently.
- **Streamline workflows:** Plugins can automate certain tasks and processes, reducing the time and effort required to complete a project.
- **Save time:** Plugins can save users time by providing shortcuts and other tools that make it easier to complete tasks in the Paradime Code IDE.
- **Improve productivity:** Plugins can help improve productivity by making the work environment more user-friendly and intuitive.

Overall, plugins in a marketplace can help users of Paradime by improving the overall experience of using the Code IDE and making it easier to perform their work more efficiently.

The screenshot shows the 'Code Editor' interface with a sidebar on the left containing navigation icons for Home, Plugins, Code snippets, Projects, Hackathon, and Mentorship. The 'Plugins' tab is selected, displaying a list of plugins with a search bar and a 'Trending' dropdown. Each plugin entry includes an icon, title, description, author, download count, rating, and a 'Try it' button.

Icon	Plugin Name	Description	Author	Downloads	Rating	Action
	Model Validator	A plugin that automates the process of validating data models and catching errors before they are deployed to production.	Akshith	854	4.1	Try it
	Data Quality Checker	A plugin that helps engineers ensure data quality by running checks for completeness, accuracy, and consistency.	Aditya	478	4.0	Try it
	Code Optimization Tool	A plugin that provides code optimization suggestions to help engineers write more efficient and maintainable code.	Priya	25	5.0	Try it
	Model Versioning and History	A plugin that tracks and stores version history for data models, allowing engineers to revert to previous versions if needed.	Rahul	186	4.8	Try it
	Performance Monitoring	A plugin that monitors the performance of data models and provides insights into potential bottlenecks and areas for improvement.	Sourabh	65	3.5	Try it
	Data Integration Tools	A plugin that streamlines the process of integrating data from multiple sources, reducing the time and effort required to manage data.	Lakshman	541	3.2	Try it

Code snippets



Code snippets in a marketplace can help users of Paradime in the following ways:

- **Productivity:** Code snippets can save time and effort for users who are searching for a specific solution to a programming problem. They can simply search for the relevant code snippet in the marketplace and reuse it in their own code, instead of writing the code from scratch.
- **Innovative ideas:** The marketplace can inspire new ideas and innovative solutions by showcasing different approaches to solving problems. This can drive innovation and new thinking among the users of Paradime.

The screenshot displays the 'Code Editor' interface. On the left is a sidebar with navigation options: Home, Code snippets (selected), Projects, Hackathon, and Mentorship. The main area shows a search bar and a 'Trending' dropdown. A code snippet titled 'Customer Analysis' is featured, with a description: 'This query provides a summary of customer data, including the total spend and the number of orders made by each customer, and limits the result to the top 100 customers with the highest total spend.' Below the description is a code editor window showing a SQL query. To the right of the code editor are 'Copy' and 'Export to new file' buttons. Below the main snippet are three smaller cards, each with an icon and a title: 'Selecting data from a single table', 'Filtering data based on condition', and 'Joining multiple tables'. Each card includes a brief description of the query it represents.

Customer Analysis

This query provides a summary of customer data, including the total spend and the number of orders made by each customer, and limits the result to the top 100 customers with the highest total spend.

```
WITH customer_data AS (  
  SELECT customer_id, first_name, last_name,  
         SUM(total_order_value) AS total_spend,  
         COUNT(DISTINCT order_id) AS order_count  
  FROM `bigquery-public-data.ecommerce.customers`  
  JOIN `bigquery-public-data.ecommerce.orders`  
    ON customers.customer_id = orders.customer_id  
  GROUP BY customer_id, first_name, last_name  
)  
SELECT first_name, last_name, total_spend, order_count  
FROM customer_data  
WHERE order_count >= 5  
ORDER BY total_spend DESC  
LIMIT 100;
```

Selecting data from a single table

This query retrieves all columns from the customers table in the ecommerce dataset in the Big Query public data project.

Filtering data based on condition

This query retrieves the first and last name of customers from the customers table in the ecommerce dataset in the Big Query.

Joining multiple tables

This query retrieves the first & last name & total spend of customers in the customers and orders tables in the ecommerce data.

Projects showcase



The projects showcase feature in a marketplace can help users of Paradime in the following ways:

- **Save time:** Users can quickly and easily duplicate existing projects instead of creating a new project from scratch.
- **Learn from existing projects:** Users can use cloned projects as a starting point to learn new techniques, frameworks or workflows.
- **Collaborate with others:** Users can share their projects with others by cloning it and allowing others to access it. This makes it easy for teams to collaborate on projects and make modifications together.
- **Improve projects:** Users can make modifications to existing projects and improve upon it by cloning it.

Code Editor

Plugins

Code snippets

Projects

Hackathon

Mentorship

Search

Trending

Discover inspiring projects

Browse, clone, and customize the latest projects made by your peers.

Customer Segmentation
Abhinav

Clone

Predictive Maintenance
Ellis Warner

Clone

Fraud Detection
Ellyse Perry

Clone

Sales Forecasting
Tom Moody

Clone

Customer Churn Analysis
Williams

Clone

Web Analytics
Thomas Owen

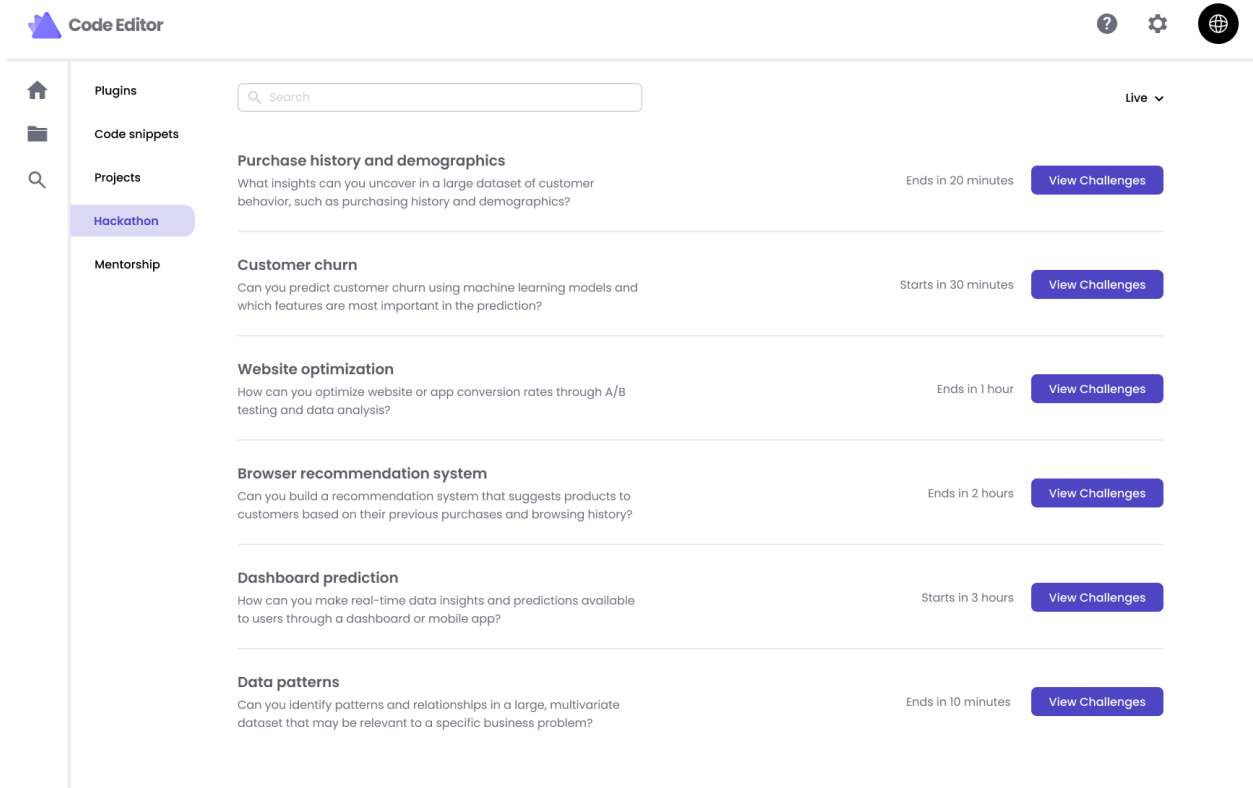
Clone

Hackathon



The hackathon feature in the marketplace can help users of Paradime in several ways:

- **Skill Development:** It can help users to develop new skills and improve their existing skills.
- **Competition:** The hackathon feature can create a competitive atmosphere that can drive innovation and lead to new and creative solutions.
- **Prizes and Rewards:** There can be rewards and prizes for the best projects, which can provide an incentive for users to participate and take the hackathon seriously.

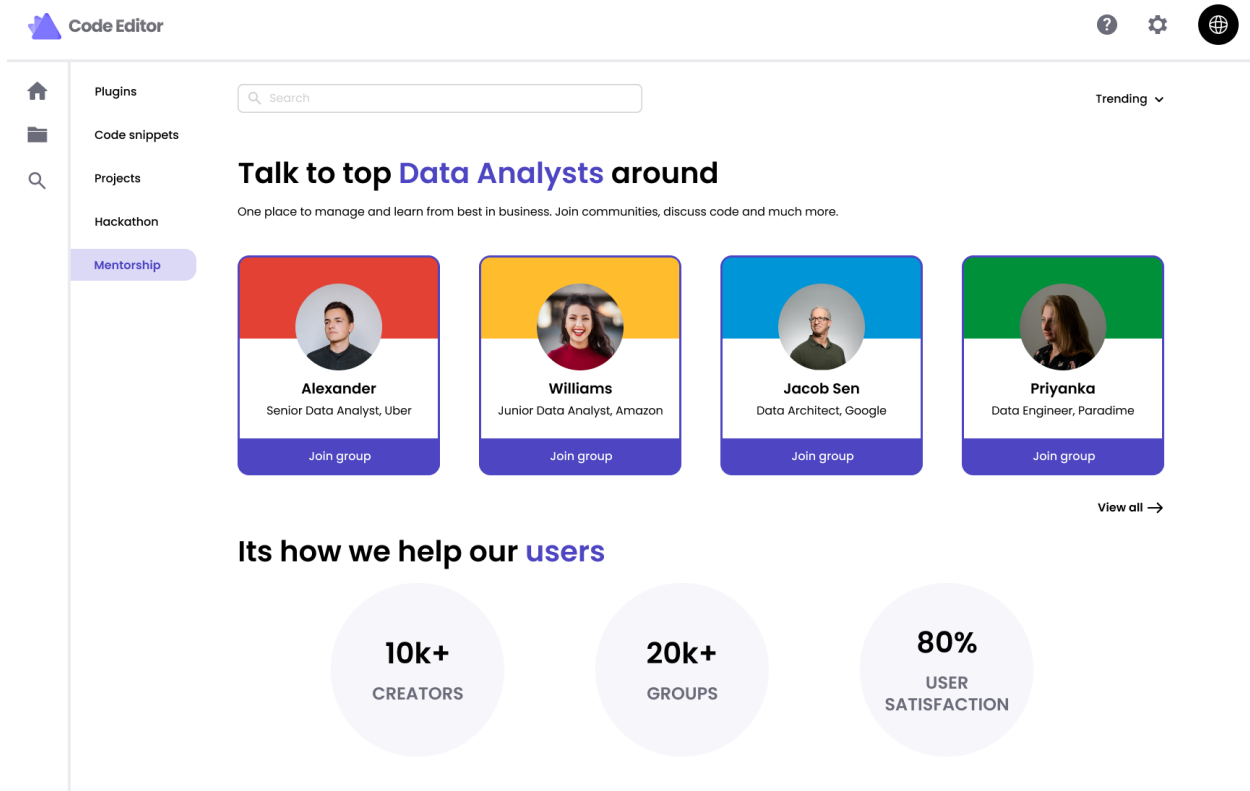


Mentorship



The mentorship feature in a marketplace can help users of Paradime in the following ways:

- **Expert Guidance:** Mentors can provide guidance and advice to users on how to use the platform, troubleshoot technical issues, and optimize their workflows.
- **Skill Development:** Mentors can help users improve their technical skills by providing training, guidance, and hands-on experiences.
- **Networking Opportunities:** Mentorship can provide users with opportunities to network with professionals in their field, join their groups, build relationships, and learn from experts.



Execution plan for MVP (Using Trello)

Code IDE Revamp



<https://trello.com/invite/b/1lzYyycg/ATTI04edfd875718c02bbdf1335cd23ee4919AC0830E/code-ide-revamp>

Code snippets



<https://trello.com/invite/b/12lhXGND/ATTI72d958f9b921a6ea68bf86ebce07fd2e8018669E/code-snippets>

Plugins



<https://trello.com/invite/b/YcRRaiMT/ATTIf8add88091b5e9d69b6dd20841118dca4FA77EF6/plugins>

Discussion forums



<https://trello.com/invite/b/9qxypGeX/ATTI1cf721a907aaedb775ced4f530bc2dc932FD6993/discussion-forums>

Resource plan for MVP

1. Human Resources:

- Community Manager: A POC who is responsible to look after a community and ensure it is active and engaged.
- Product Manager: A person responsible for the overall development of the community, plugins, extensions and who takes the responsibility of the management of the net development of the product.
- Development Team: The tech team of designers and developers involved for the net development of the platform on technical grounds.
- Technical Writer: POC for the tech guidelines which has to be written and other technical content stuff.

2. Technical Resources:

- Server infrastructure: Allocation of resources related to the host community and hosting server that would be allotted by the Paradime organization.
- Development tools: The tools that would be required by the developers and designers to manage the different zones of issue traffic and several other tech related issues.
- Testing and Quality Assurance: Resources allocated for the testing and quality assurance of the plugins and extensions that would be involved in the functioning of the platform.

3. Financial Resources:

- Development costs: Funds need to be allocated for the development of the community and plugins/extensions platform, including development time, hardware and software, and any third-party services.
- Marketing and Promotion: We need to allocate funds for marketing and promotion of the community and plugins/extensions platform, including content creation, community management, and advertising.
- Customer support: We will need to allocate funds for customer support, including training and technical support for community members and plugin/extension developers.

Pricing Model



There are several pricing models that can be considered for a product features in Paradime code IDE:

- **Free Plan:** Offers basic features with Code IDE with limited number of queries and unlimited free projects.
- **Professional Plan:** Offers advanced features, collaboration tools and unlimited projects for individuals and small teams, with access to discussion forum, code snippets and basic plugins.
- **Organization Plan:** Offers enterprise-level features and collaboration tools for larger organizations with full access to code snippets, advanced plugins and mentorship features.
- **Custom Pricing:** Offers custom pricing options for large enterprises and special requirements.
- **Add-ons:** Offers additional integrations and tools for an additional fee to use plugins and snippets.

The pricing model that will work best for your product will depend on the target audience, the value that the product provides, and the market competition. It is important to test different pricing models and gather customer feedback to determine the pricing model that will maximise revenue while still providing a good value to the customers.



Paradime can maintain a healthy balance of profit and growth by following a subscription based freemium model.

A subscription-based SaaS (Software as a Service) pricing model typically charges customers a recurring fee, usually monthly or annually, to access the software. The price is usually based on the number of users, features included, and level of support required. Some pricing strategies that can be used by Paradime include:

- A basic version of the software will be offered for free, while premium features like Lineage, Catalog, Radar, Bolt, etc are offered at a cost. The basic version provides enough functionality to attract potential customers and encourages them to upgrade to the premium version for additional features and benefits. This model allows users to try the product before committing to a purchase, increasing the likelihood of conversion to paying customers.

- Larger organisations could buy organisation-level subscriptions and have more features like unlimited integrations, up to 10 developers, etc.
- Other sources of revenue will include the commission charged on the sale of premium plugins in the marketplace.

Metrics/KPIs

For Paradime

Metrics	Description	Feature
<u>Daily Active User (DAU)</u>	This metrics will provide us a high-level view of how your user base is changing over time and user activity in your product.	Generic
<u>Adoption %</u>	The number of users who have adopted the product by the total number of users who have access to the product. It can give you a good indication of the success of the product.	Generic
<u>Conversion %</u>	To calculate the conversion rate, you can divide the number of users who have taken the desired action by the total number of users who have access to the product.	Generic
<u>Stickiness (DAU/ MAU)</u>	To calculate stickiness we will take the ratio of Daily active users and Monthly Active users	Generic
<u>No. of user action per session</u>	To calculate it we will simply calculate the no of user actions for each feature	Code snippet Create snippet and Publish Discussion Forum Huddle
<u>Decrease in Customer Churn</u>	To calculate the customer churn rate, we can divide the number of customers who have stopped using the product by the total number of customers at the beginning of the period.	Code IDE
<u>Average user time</u>	To calculate average user time, you can sum up the total time that users spend on the marketplace experience and divide it by the total number of users.	Code IDE Discussion Forum Huddle
<u>Bounce Rate</u>	To calculate bounce rate, we can divide the number of users who leave after visiting one page by the total number of users who enter the marketplace experience	Code IDE Create snippet and Publish Discussion Forum Huddle Plugin
<u>Decrease in error per user</u>	To calculate the no of errors per user we will calculate the no of execution errors	Code IDE Create snippet and Publish
<u>No. of plugins used per user</u>	To calculate number of plugins used per user	Plugin
<u>No. of code snippets per user</u>	To calculate number of code snippets used/ published per user	Code snippet Create snippet and Publish
<u>No. of messages per</u>	To calculate number of messages sent by user in the forum	Discussion Forum

📊 Metrics	≡ Description	⋮ Feature
<u>user</u>		
<u>Net Promoter Score (NPS)</u>	To measure of customer satisfaction and loyalty. This helps to determine how likely users are to recommend the platform to others.	<div>Discussion Forum</div> <div>Mentorship</div> <div>Plugin</div> <div>Projects</div>

North-star Metrics:

- No. of user action per session

Next steps beyond MVP

Gamification and reward system



We can gamify and add reward system:

- **Achieve milestones:** Offer rewards for reaching certain milestones in usage or contributing to the marketplace.
- **Leaderboards:** Create leaderboards to showcase the top contributors in the marketplace and offer rewards to the top performers.
- **Quests and challenges:** Create challenges and quests that encourage users to try out different features, plugins, or extensions and reward them for their efforts.
- **Badges and certificates:** Award users with badges and certificates for their achievements in the marketplace.
- **Points system:** Implement a point system where users can earn points for their contributions to the marketplace, and redeem them for rewards.
- **Referral program:** Offer rewards for users who refer friends and colleagues to the marketplace.
- **Loyalty program:** Create a loyalty program where users can earn rewards for their long-term contributions and usage of the marketplace.
- **Contests:** Run periodic contests that encourage users to engage with the marketplace, such as creating plugins, extensions, or writing reviews, and reward the winners.

Plugin Commercialisation



We can commercialise our plugins in the following manner:

- **Offering paid support and maintenance services** for plugins to provide better customer service to users.
- Adding a **monetisation model for plugin developers** to incentivise them to create and maintain high-quality plugins.
- **Integrating machine learning algorithms** to automate certain tasks and improve the performance of the plugins.
- Improving the **discovery and recommendation system** for plugins, making it easier for users to find relevant plugins for their needs.
- Introducing a **rating and review system** for plugins to help users make informed decisions about which plugins to use.

Prototype



Figma prototype link: <https://www.figma.com/proto/A8W37ayF6R1rDxpiX3S0Iz/Inter-IIT?page-id=118%3A1547&node-id=119%3A2352&viewport=851%2C597%2C0.1&scaling=scale-down&starting-point-node-id=119%3A2106>

In this video below, you can see our prototype.

<https://s3-us-west-2.amazonaws.com/secure.notion-static.com/fbeeacf3-da1b-48c0-acc8-7cf4f5c44493/Untitled.mp4>

Prioritization Metrics