



# TO-DO Tracker

**Presented By:**

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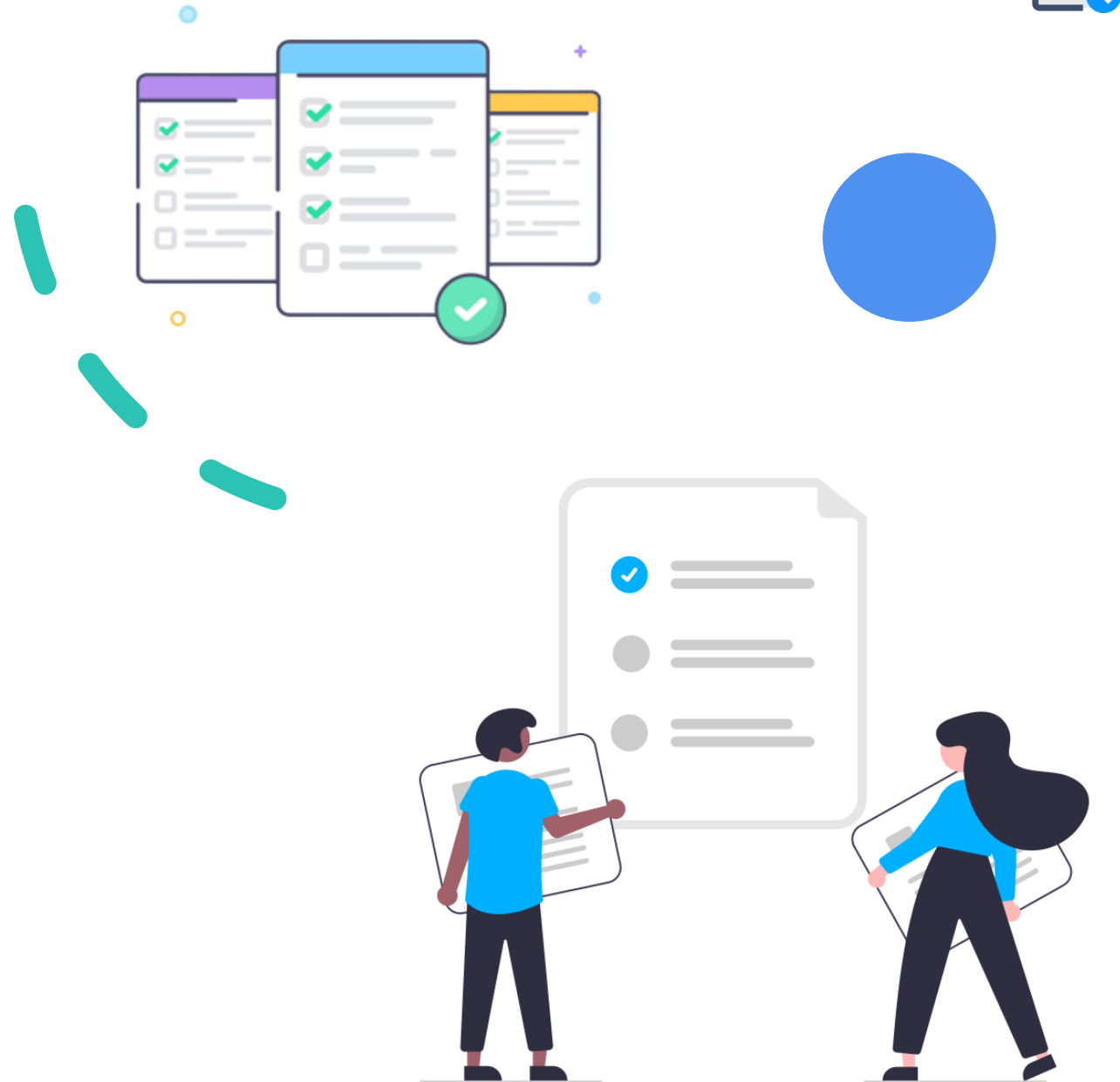
**Mentor:**

Mr. Rakesh Pandit



# About TO-DO Tracker

- Captures quick ideas, add notes, check tasks off your To-Do list.
- One of the fundamental features for any productivity tool is a To-Do list. With the To-Do Tracker, you can create and share notes and lists.
- To-Do Tracker surfaces the right tasks at the right time, so you always know what to focus on next.





# Features of our Project

1

User can create as many to-do he/she wishes to, categorize and organize your tasks.

2

Get reminded about self-imposed deadlines.

3

Mark the tasks as completed. Modify/Update and remove the tasks from list as required.

4

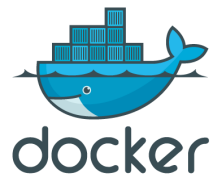
Offers user friendly interface.

5

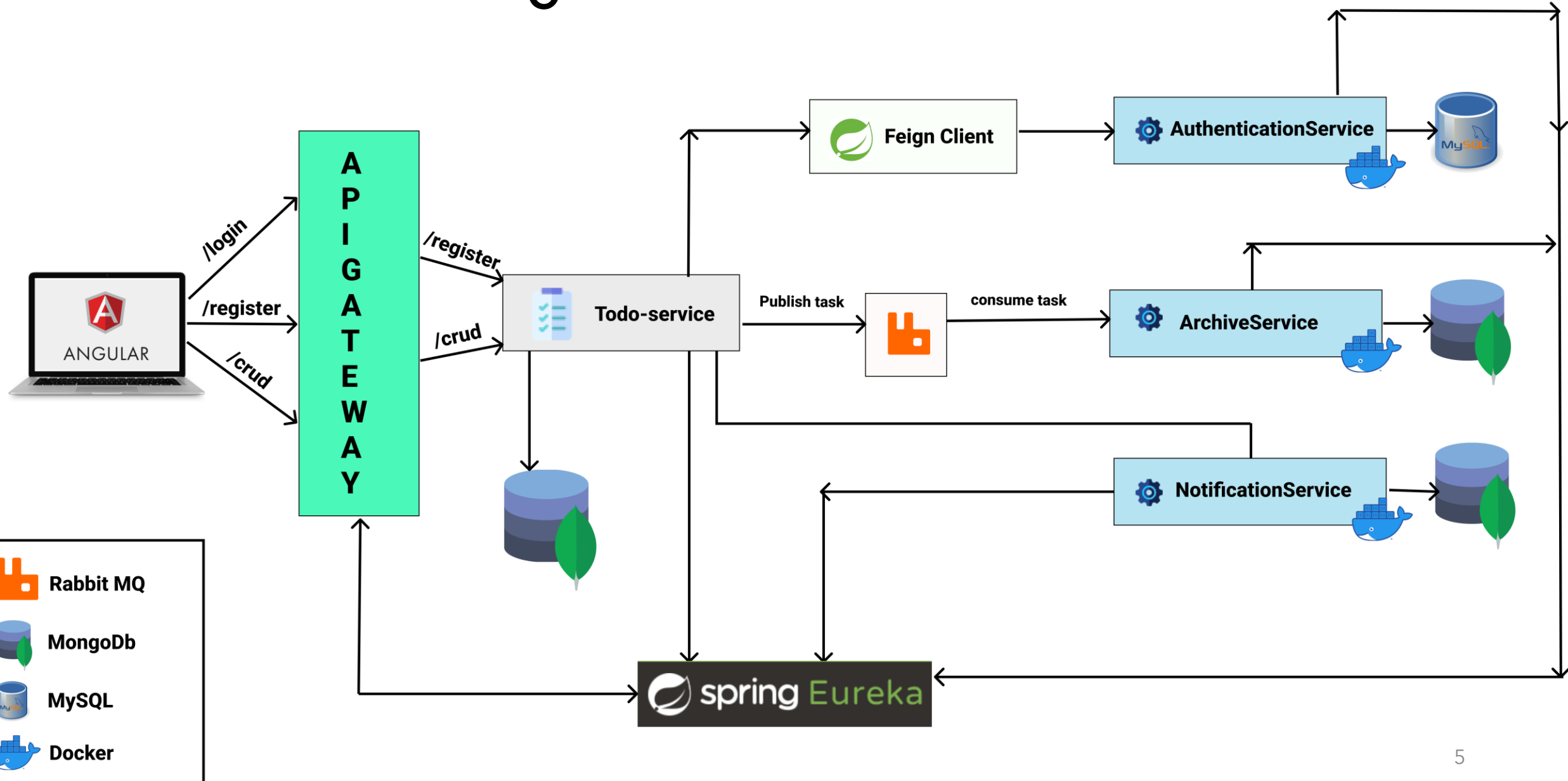
List the archived tasks as and when required.



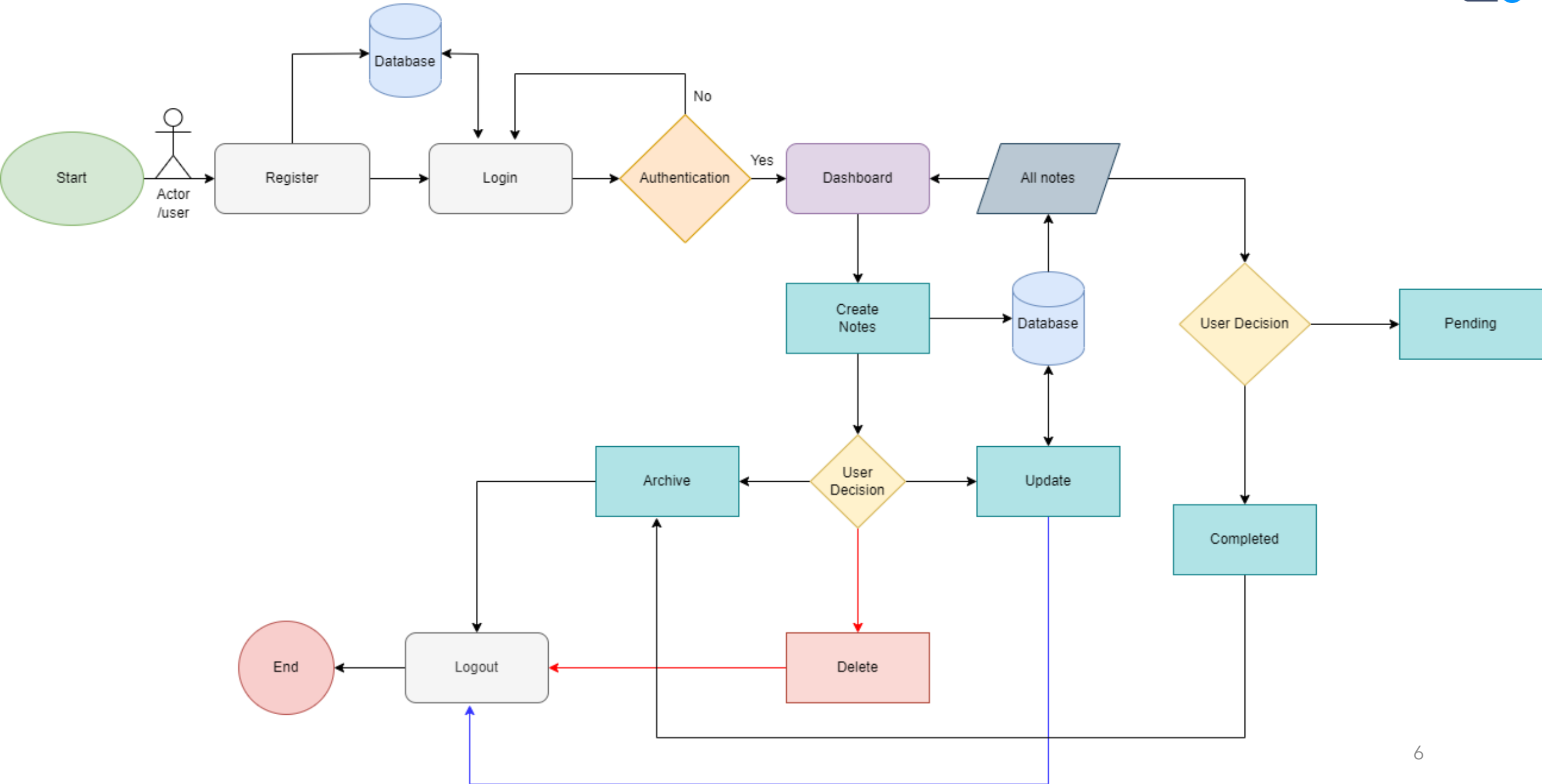
# Technologies used



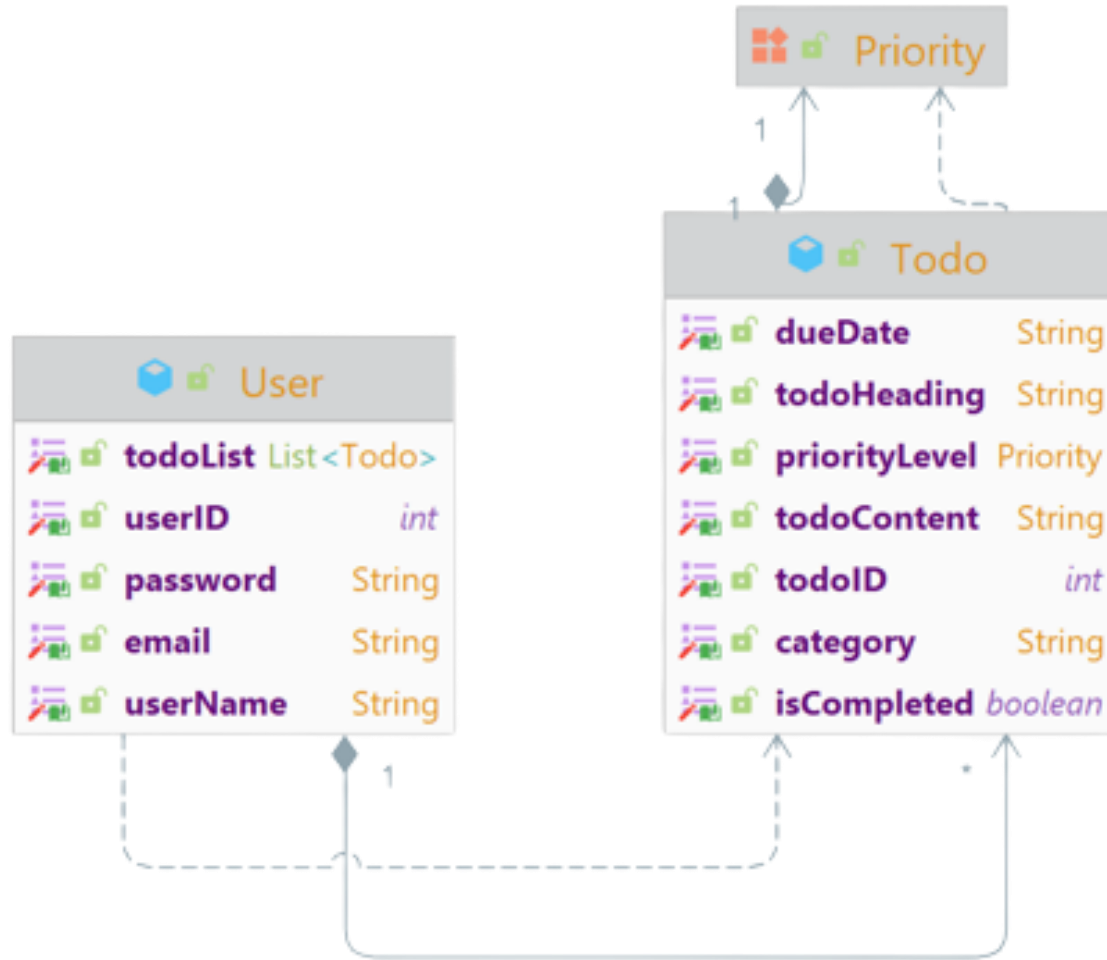
# Architecture Diagram



# Workflow Diagram



# Class Diagram





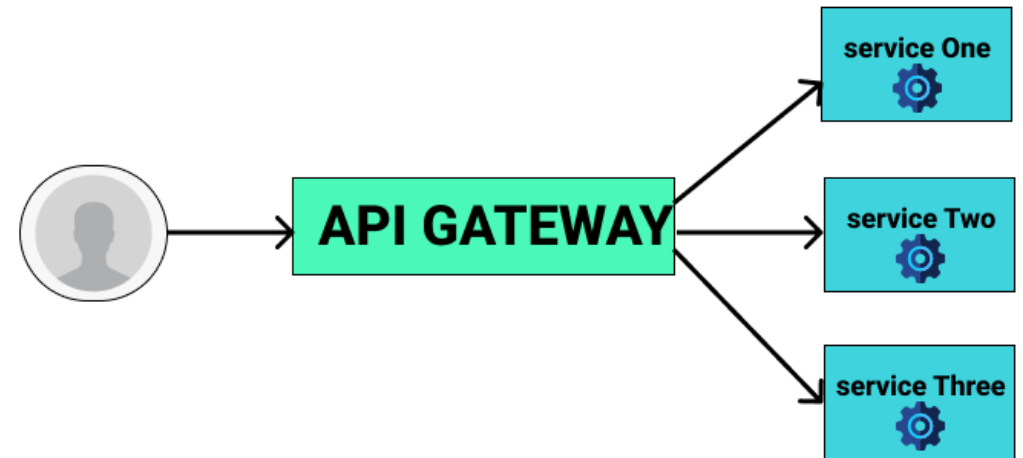
# Features that we have implemented at Backend

- API Gateway Service
- Eureka server
- JWT for Authentication
- Feign Client
- Rabbit MQ
- Docker



# API Gateway Service

- The API Gateway offers a reverse proxy to redirect or route requests to the endpoints of the internal microservices. We have used Spring Cloud's API Gateway Service.
- It makes it possible for the user to access microservices without knowing their actual location .
- It is a tool that sits between a client and a collection of backend services.





# Eureka Server

- Eureka Server is an application that holds the information about all client service applications.
- Eureka Server continuously sends heartbeat to each of its client-service application and checks whether they are up and working .
- Eureka server is also known as Discovery Server and helps in load balancing and failure handling.





# JSON Web Token for Authentication

- It is a standard for token-based authentication.
- It uses the HMAC SHA-256 signing algorithm .
- We have implemented JWT for authentication of user in our project.





# Feign Client

- Synchronous communication between microservices is possible by using Feign Client.
- In this approach the calling service will wait until the caller service responds.
- In Synchronous communication , a chain of requests is created between the microservices while serving the client request.



**Spring Feign Client**



# Rabbit MQ Server

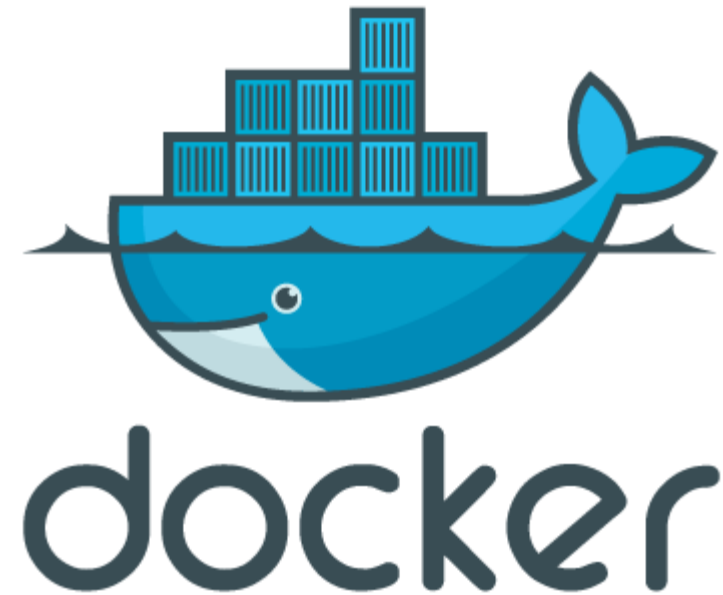
- Rabbit MQ is one of the most popular open-source message brokers that gives all applications a common platform to send and receive messages. Here the messages get safe place to live until received.
- It uses Advanced Message Queuing Protocol.
- In Asynchronous Communication , the client doesn't wait for a response from the server. The flow of communication is one way.





# Docker

- Docker is a container technology to build, ship and run any app at any operating system or platform.
- When a docker image runs , it becomes a container , which can be created , started , stopped and deleted .
- It is cost effective and helps in fast deployment.





# Technologies used in Frontend

- Angular
- HTML & CSS
- Material Design Bootstrap(MDB)

# Angular

- Angular is an open-source, JavaScript framework written in TypeScript.
- Its primary purpose is to develop single-page applications.
- Angular is cross-platform and compatible with multiple browsers.







# Material Design Bootstrap(MDB)

- Material Design Bootstrap (mdbootstrap.com) provides a set of slick, responsive page templates, layouts, components and widgets to rapidly build web pages.
- It is a Open Source UI Kit & Templates built using material design, Bootstrap and Angular.

MDB



# Database used

- MySQL
- MongoDB

# MySQL

MySQL is an open-source Relational Database Management System (RDBMS).

- It is one of the most popular open source RDBMS
- It is developed, distributed, and supported by Oracle Corporation.
- It runs on a server



# MongoDB

- MongoDB is an object-oriented, simple, dynamic, and scalable NoSQL database.
- Schema less – MongoDB is a document database in which one collection holds different documents.
- Number of fields, content and size of the document can differ from one document to another.





# Project Walkthrough

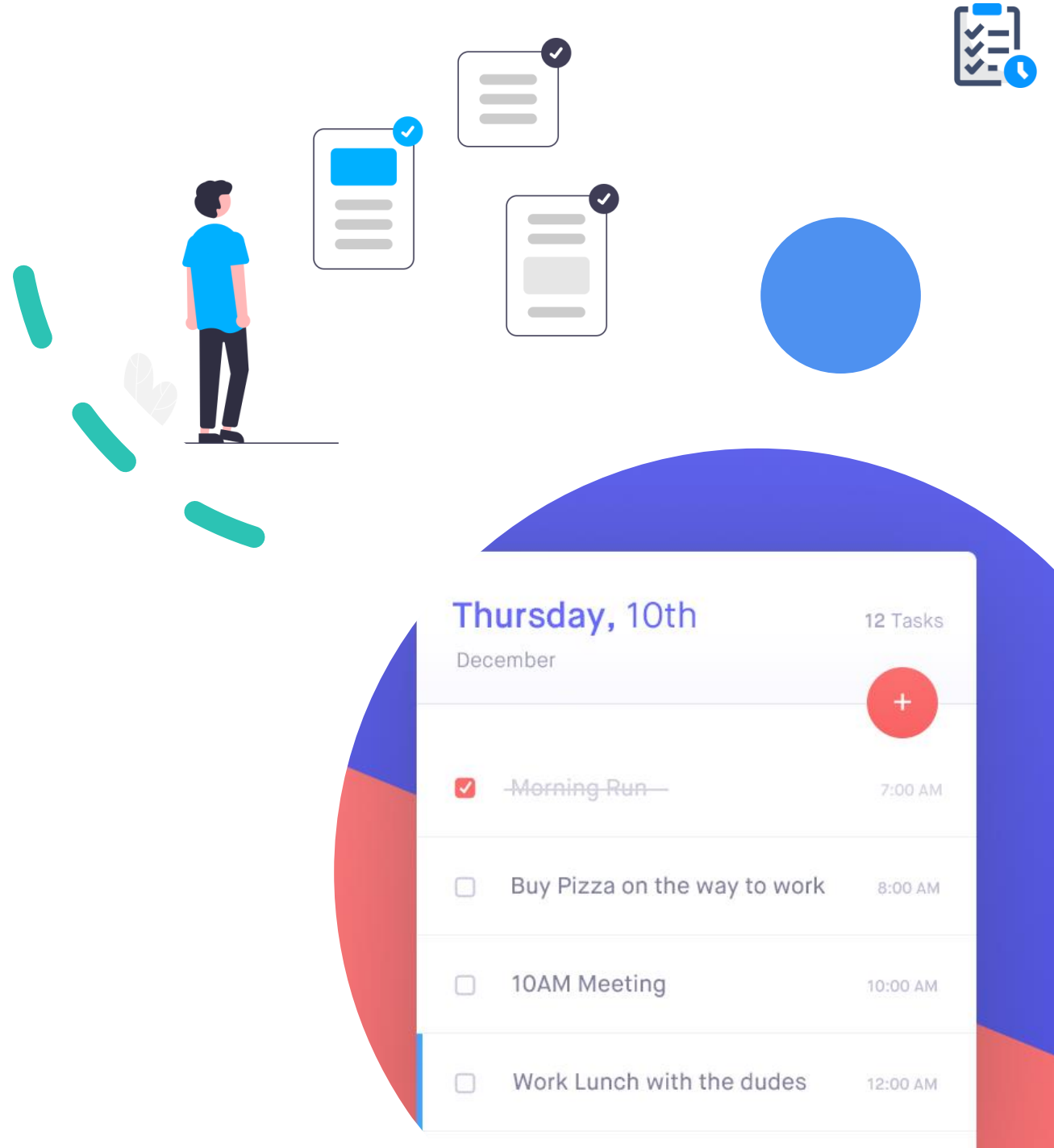


TO-DO Tracker

# Further improvements

Since we have created this product in 12 days for our initial release, in our later versions, we will incorporate the following enhancements:

- Make the UI more enriched.
- Forgot password features.
- Calendar for tracking to-do date wise.
- Share notes to a particular user.
- And many more based on feedback.





Thank you

- Shashank Malviya
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