Programmer's Den(Backend)

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Main Repository:

- Programmer's Den(Backend) repo

Timeline

1st week:

- Started learning basics of Scala programming language from the comprehensive blog by covering parts 1-17 and then parts 23-28
- Jumped to this link Twitter Scala School, as it was recommended by our mentor.
- Completed the exercises from the site for building better understanding of the language

2nd week:

- Started reading and working out exercises from this book Functional Programming in Scala
- Learned about sbt tool.
- Read about the features of REST API.
- Got a basic Idea of the Akka-http model from their official documentation

3rd week:

- Got familiar with Routing wiht akka-http and found the minimal example of using akka-http routing very helpful in understanding the above.
- Learned about Actors in Akka and how they are used for asynchronous calls.
- Completed the exercises from the first five chapters of Functional Programming in Scala the answers to which are here

Was away from campus for two weeks which had been previously notified to the mentor

6th week:

- Decided the endpoints for the API. There will be two main models , Question and Users and each would have certain endpoints:

  - /api/questions/(GET): It will return the complete list of questions to be searched in the frontend.
  - /api/questions/id(GET) : It will return the particular question from the id
  - /api/questions/(POST): For uploading a particular question.
  - /api/questions/id(PUT): For editing the particular question.
  - /api/questions/id(DELETE): For deleting a particular question.
  - /api/users/(GET): For obtaining the complete list of users registered.
  - /api/users/(PUT): For editing the details of an user.

- Followed the links recommended by our mentor to get an idea of akka http REST API:

  - Reactive REST Services using Akka HTTP
  - How to build a REST API with Akka Http

- Started learning Slick(Scala Language-Integrated Connection Kit), which is Functional Relational Mapping (FRM) library for Scala that makes it easy to work with relational databases

7th week:

- Read initial chapters from the book which was assigned to us by our mentor Essential Slick.

- Tried understanding code sample from Essential-Slick-Code

- Used slick for handling postgres queries.

- On mentor's recommendation chose flyway for Database migrations and started reading it's documentation.

- Wrote the config and migration files for database migration using flyway-sbt plugin

- Defined the models required for the backend and created tables using the migration files

- Wrote the code for the previously decided routes.

- No work was done as of yet by frontend and thus API wasn't integrated with the frontend.