Block Diagram
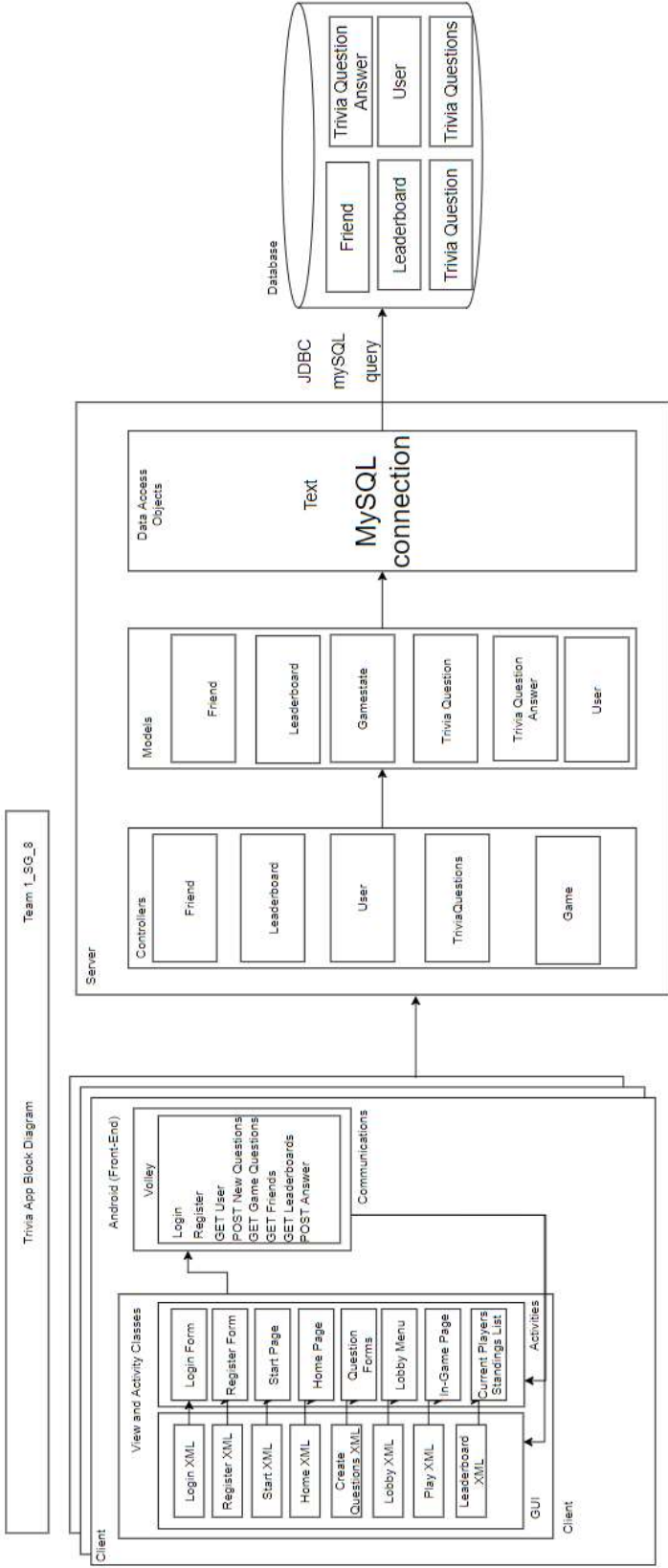
Design Document for Party Games App

Group 1_SG_8

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Trivia App Block Diagram

Team_1_SG_8

Client

Android (Front-End)

View and Activity Classes

GUI

Login XML	Login Form
Register XML	Register Form
Start XML	Start Page
Home XML	Home Page
Create Questions XML	Question Forms
Lobby XML	Lobby Menu
Play XML	In-Game Page
Leaderboard XML	Current Players Standings List

Activities

Volley

Login
Register
GET User
POST New Questions
GET Game Questions
GET Friends
GET Leaderboards
POST Answer

Communications

Server

Controllers

- Friend
- Leaderboard
- User
- TriviaQuestions
- Game

Models

- Friend
- Leaderboard
- Gamestate
- Trivia Question
- Trivia Question Answer
- User

Data Access Objects

Text

MySQL connection

JDBC
mySQL
query

Database

Friend	Trivia Question Answer
Leaderboard	User
Trivia Question	Trivia Questions

Android User GUI

On the client side there is a GUI that consists of XML files each with their own Android activity dedicated to it. The users will be using this GUI to interact with the server whether they are creating information, or pulling information whilst playing the game. Each Android activity will contain methods and data that are related to its subject.

Android Communication

Through the use of the HTTP library of Volley we will be using GET and POST requests to pull and write information to our database. Specific activities like "Create Questions" will be used by our users to saturate the database. Most activities at one point will send or receive data from the server at some point in time.

Trivia Question

Allows the creation of trivia questions for the purpose of a trivia game. Has a relationship with TriviaQuesitonAnswer and the combination of the two allows for question answer checking.

Database Schema:

user
- 🔑 id INT
- ◇ password VARCHAR(255)
- ◇ user_email VARCHAR(255)
- ◇ user_name VARCHAR(255)
- Indexes

friend
- ◇ is_active BIT(1)
- 📍 friend_id INT
- 📍 user_id INT
- Indexes

trivia_questions
- 🔑 id INT
- ◇ category VARCHAR(255)
- ◇ text VARCHAR(255)
- Indexes

leaderboard
- 🔑 id INT
- ◇ name VARCHAR(255)
- ◇ type VARCHAR(255)
- ◇ points INT
- ◇ username VARCHAR(255)
- Indexes

trivia_question
- 🔑 id INT
- ◇ category VARCHAR(255)
- ◇ trivia_question VARCHAR(255)
- ◇ created_by_user_id INT
- Indexes

trivia_question_answer
- 🔑 id INT
- ◇ is_answer_correct BIT(1)
- ◇ question VARCHAR(255)
- ◇ trivia_question_id INT
- Indexes

trivia_question_answers
- ◆ trivia_question_id INT
- ◇ answers VARCHAR(255)
- Indexes