Design Document for Crypto Shop

Group 1_SG_1

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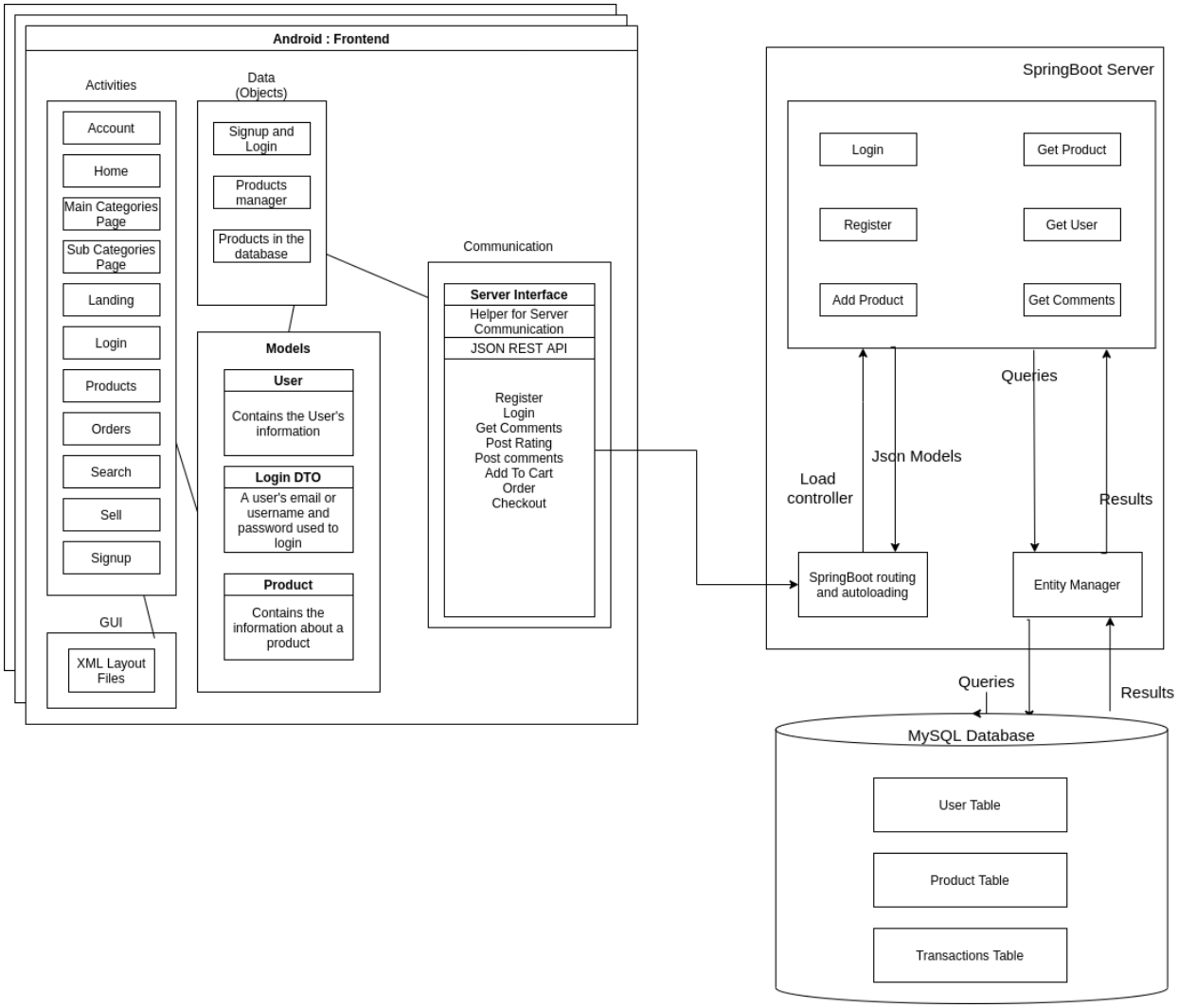
Block diagram

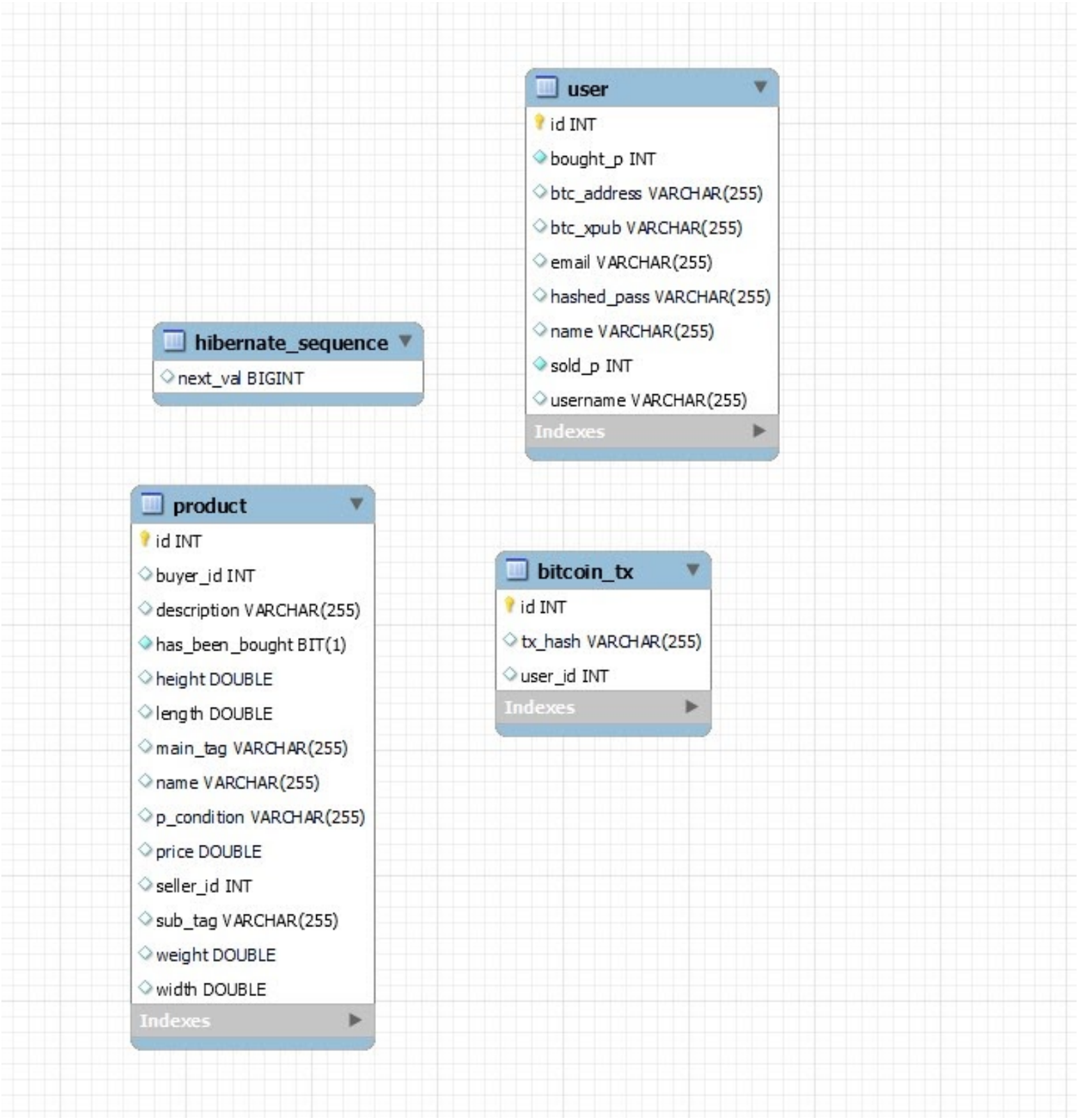


Brief explanation of the diagram:

- Client side:
  The client side doesn't contain anything that could be considered "too complicated". Mainly, the views are those that allow the user to either signup or login if an account for them already exists, also there is a view for listing and browsing through the products that were registered in the database.
  The data objects used in the frontend, as of now, are: the User class, the Products class and a Data Transfer Object known as "LoginDTO" to make logging in a little bit easier.

- Server side:
  In the server we have the same models: User, Product, Transaction and LoginDTO. As of controllers, we have user and product controllers which define the following endpoints:
  /login: receives a LoginDTO as a parameter and returns whether it was successful or not.
  /addUser: basically receives a User and checks whether is fit to signup or not.
  /addProduct: endpoint to register a new product
  /findProductBySearch: given a String, search for coincidences in the products titles or descriptions
  /findUserByEmailUsername: given an email or a username, try to find a user in the database

- Database:
  The DB consists of three tables related to each other which represent the Users, the Products and the Transactions.


user
id INT
bought_p INT
btc_address VARCHAR(255)
btc_xpub VARCHAR(255)
email VARCHAR(255)
hashed_pass VARCHAR(255)
name VARCHAR(255)
sold_p INT
username VARCHAR(255)
Indexes
hibernate_sequence
next_val BIGINT
product
id INT
buyer_id INT
description VARCHAR(255)
has_been_bought BIT(1)
height DOUBLE
length DOUBLE
main_tag VARCHAR(255)
name VARCHAR(255)
p_condition VARCHAR(255)
price DOUBLE
seller_id INT
sub_tag VARCHAR(255)
weight DOUBLE
width DOUBLE
Indexes
bitcoin_tx
id INT
tx_hash VARCHAR(255)
user_id INT
Indexes