# Singapore Lottery Ledger

Github Repository: <https://github.com/testtesttesttest45/singapore_lottery_ledger>

Web application (Backend server): <https://singapore-lottery-ledger-dev-qhcc.2.sg-1.fl0.io>

Project start: 24 September 2023 (Planning)

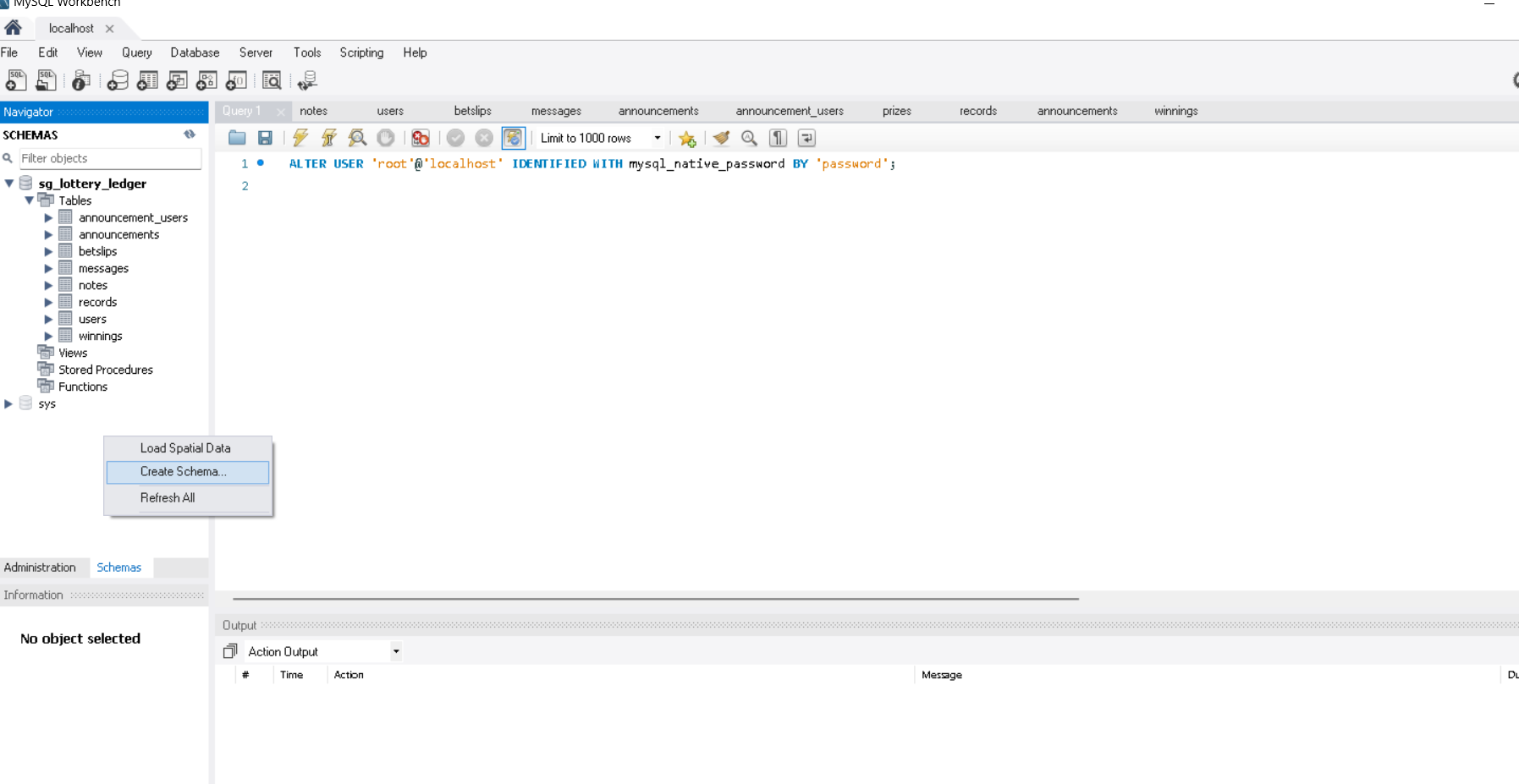
Project end: 26 October 2023 (Documentation)

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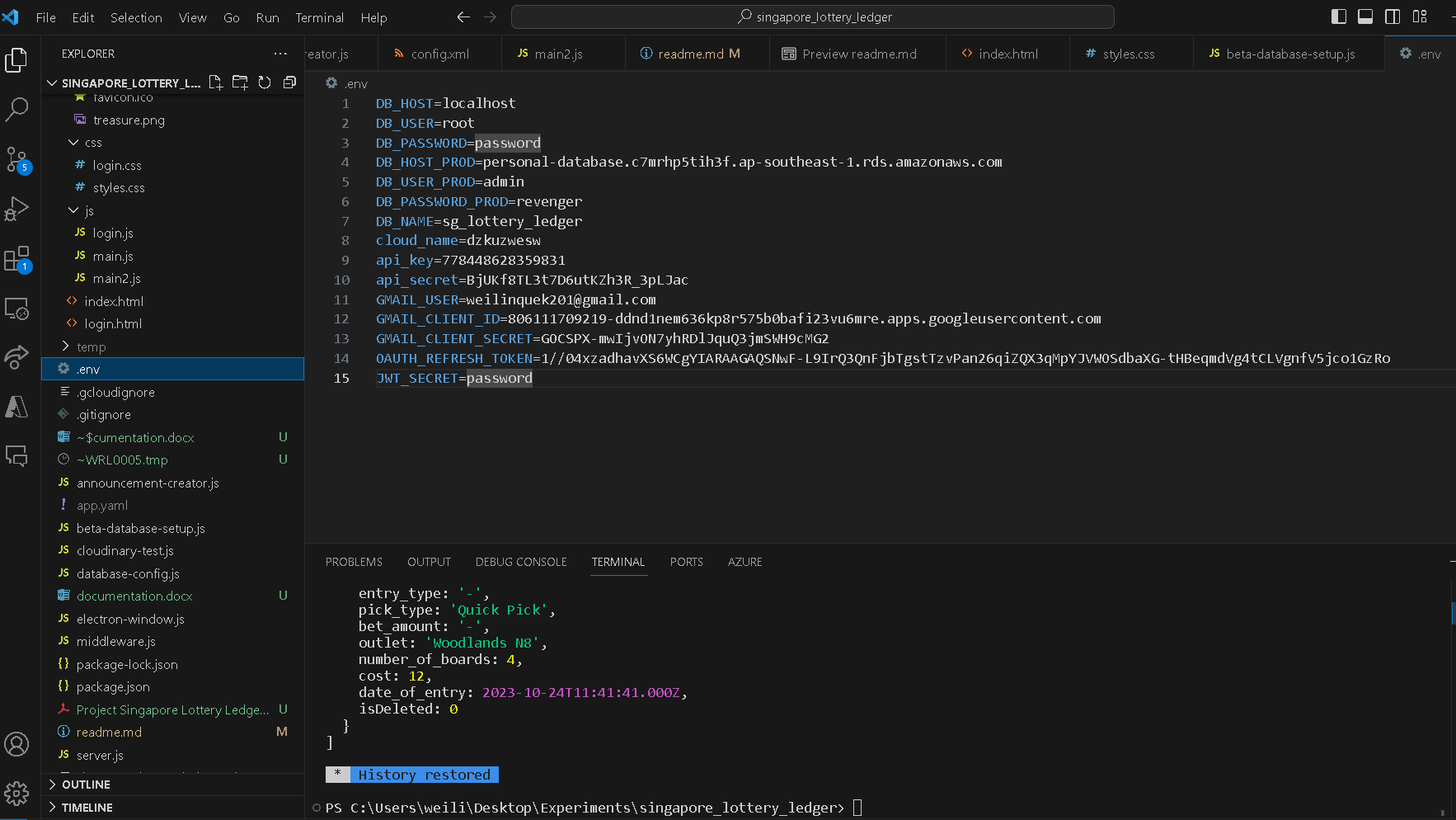
## Important setup and start on local machine/localhost

1. Clone the Github Repository
2. Open the project with Visual Studio Code, open the terminal and run this command npm install (you should have [Node.js](https://nodejs.org/en) installed)
3. Use [MySQL Workbench 8.0 Community Edition](https://dev.mysql.com/downloads/workbench/) (you should have MySQL Server 8.0/8.0.34, it should be installed along with the workbench) and create a schema, name it sg\_lottery\_ledger



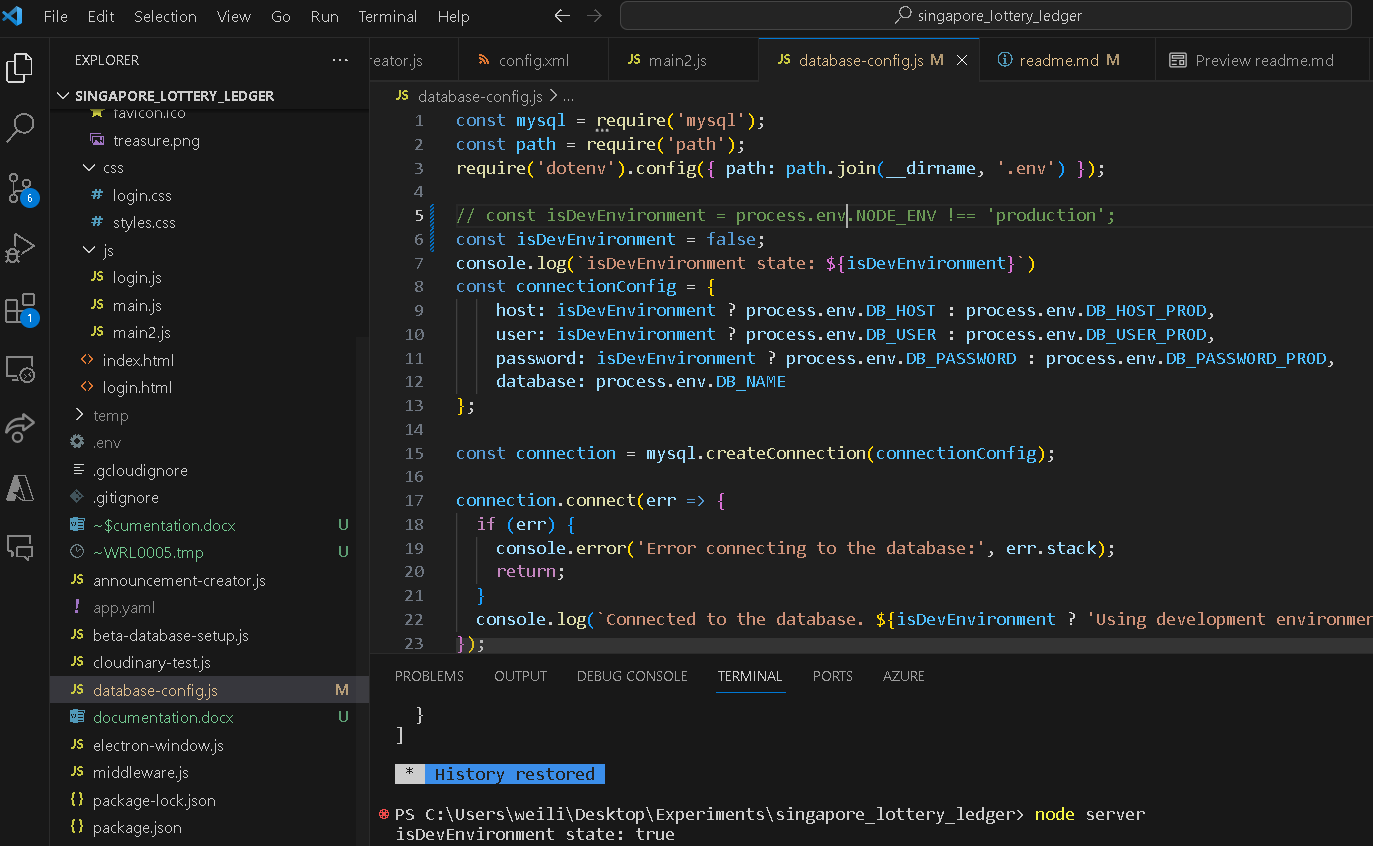
1. In Visual Studio Code, run this command in the terminal node beta-database-setup.js. This will create the necessary tables and columns structure
2. Create a new file called .env and paste the following environment variables and secrets inside

|  |
| --- |
| DB\_HOST=localhost  DB\_USER=root  DB\_PASSWORD=password  DB\_HOST\_PROD=personal-database.c7mrhp5tih3f.ap-southeast-1.rds.amazonaws.com  DB\_USER\_PROD=admin  DB\_PASSWORD\_PROD=revenger  DB\_NAME=sg\_lottery\_ledger  cloud\_name=dzkuzwesw  api\_key=778448628359831  api\_secret=BjUKf8TL3t7D6utKZh3R\_3pLJac  GMAIL\_USER=weilinquek201@gmail.com  GMAIL\_CLIENT\_ID=806111709219-ddnd1nem636kp8r575b0bafi23vu6mre.apps.googleusercontent.com  GMAIL\_CLIENT\_SECRET=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  OAUTH\_REFRESH\_TOKEN=1//04xzadhavXS6WCgYIARAAGAQSNwF-L9IrQ3QnFjbTgstTzvPan26qiZQX3qMpYJVWOSdbaXG-tHBeqmdVg4tCLVgnfV5jco1GzRo  JWT\_SECRET=password |



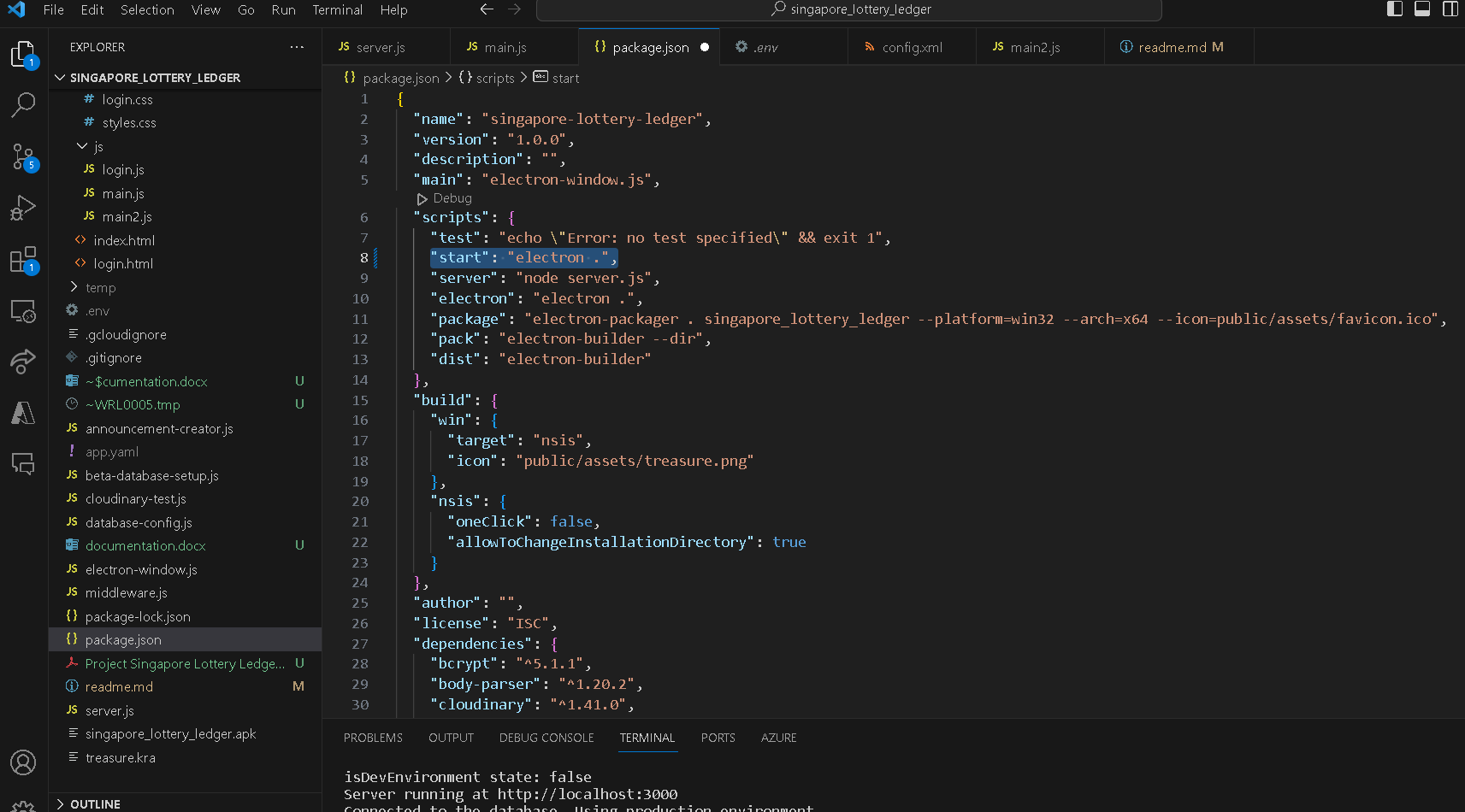
1. Start the local server with npm start or node server
2. Use a web browser and go to <http://localhost:3000>

Note: If you would like to use the production database instead of the database you just created, go to database-config.js and edit isDevEnvironment constant to false (line 5)

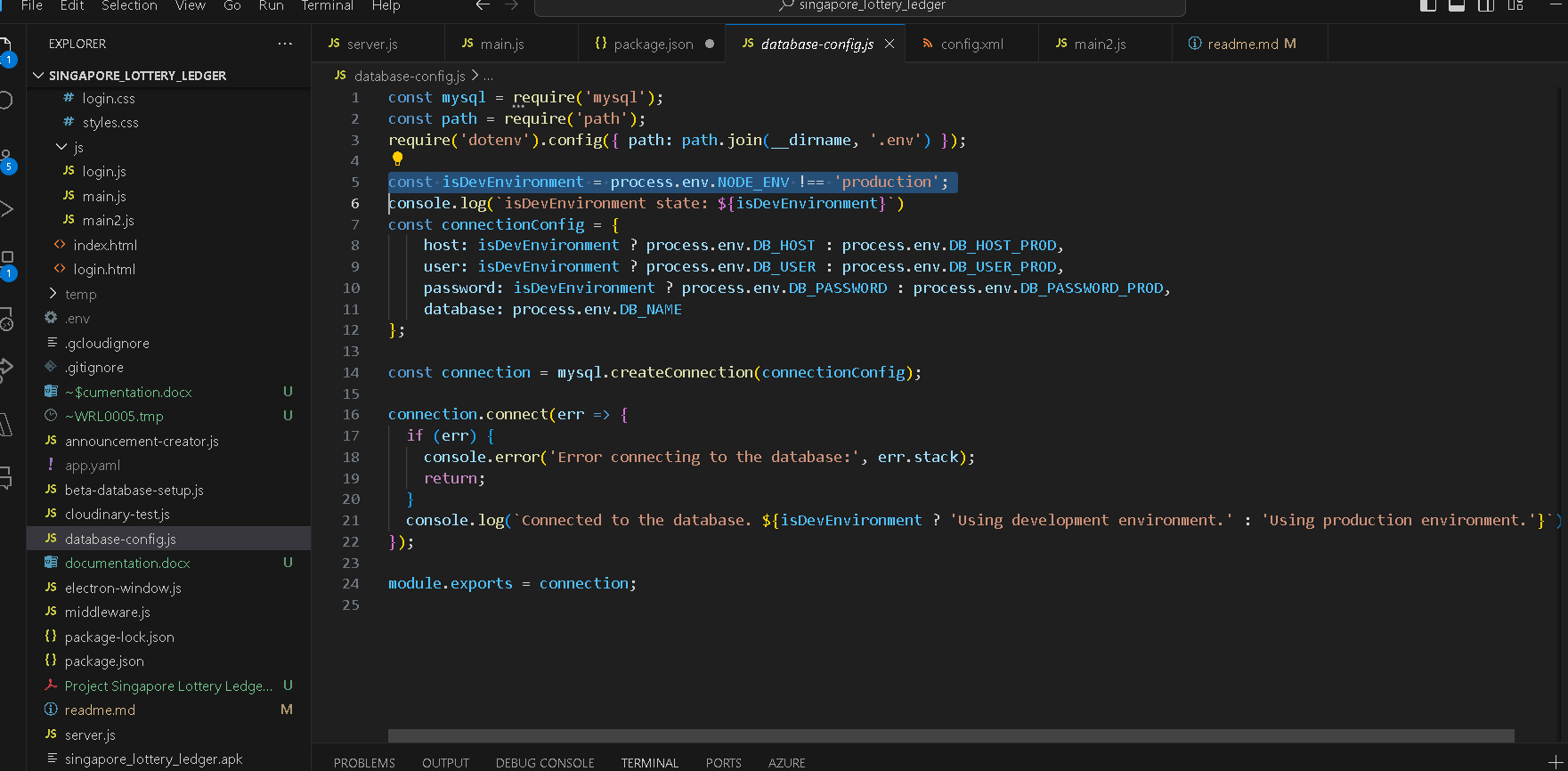


## Install on computer

1. To install on computer, you can simply unzip desktop\_installer.zip, then run the exe file. Note that this will use the production database. If you would like to use your localhost database instead, you can create the installer folder by following the steps below
2. Go to package.json and change the start script to “electron .”.



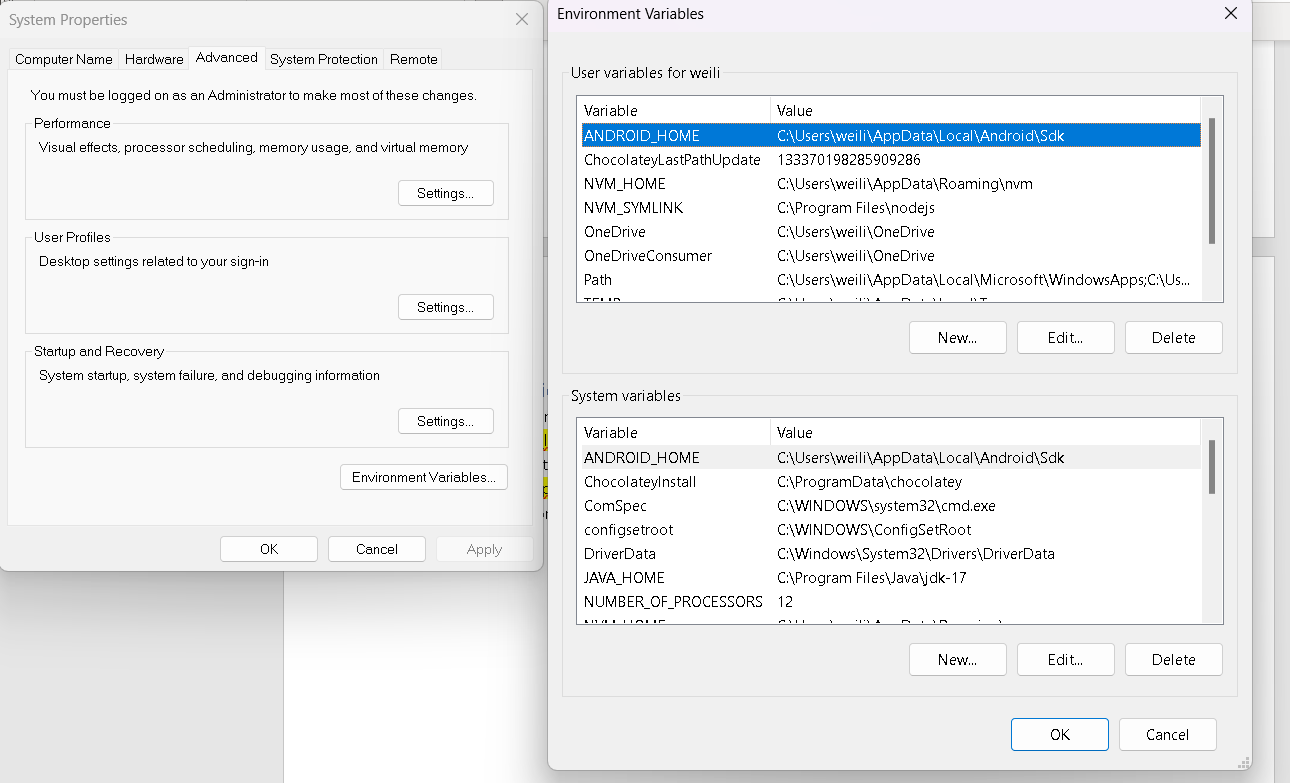
1. Go to database.setup.js and ensure you have the same code as line 5 highlighted in the picture below



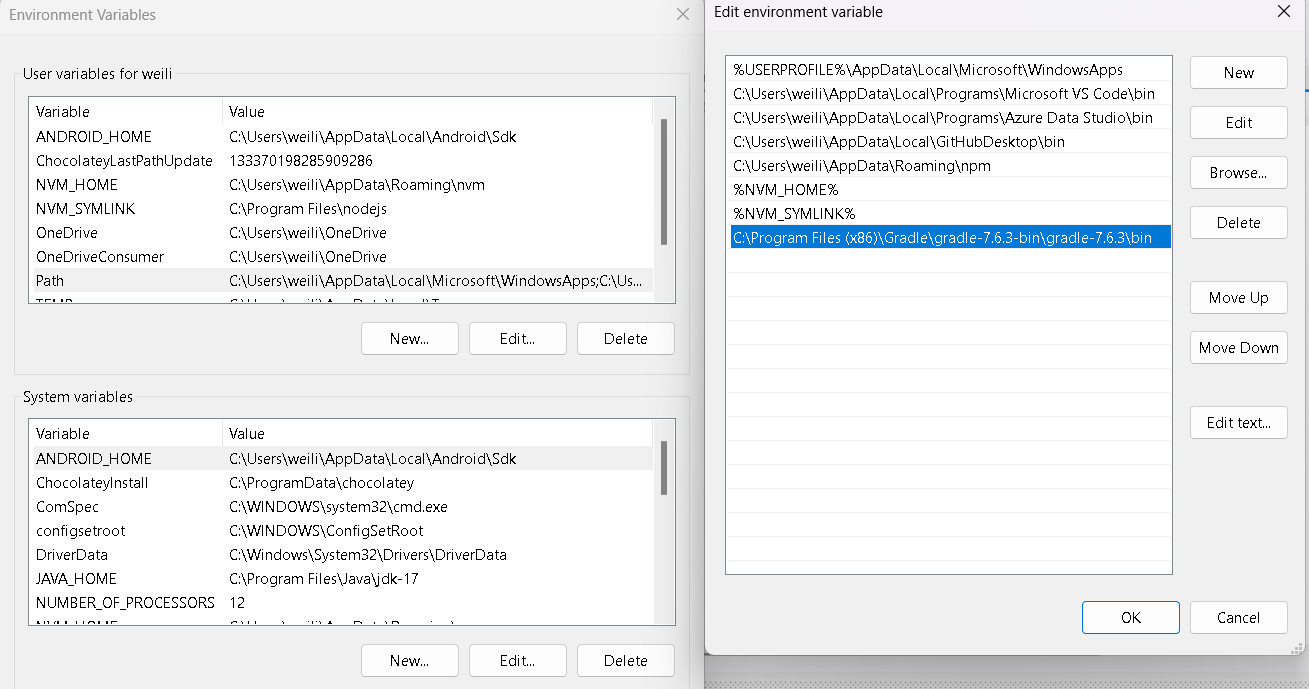
1. Run the following command in the terminal npm run dist
2. A new folder called dist will appear at your project root. Run the exe file to install and it will now use your localhost database

## Install on Android

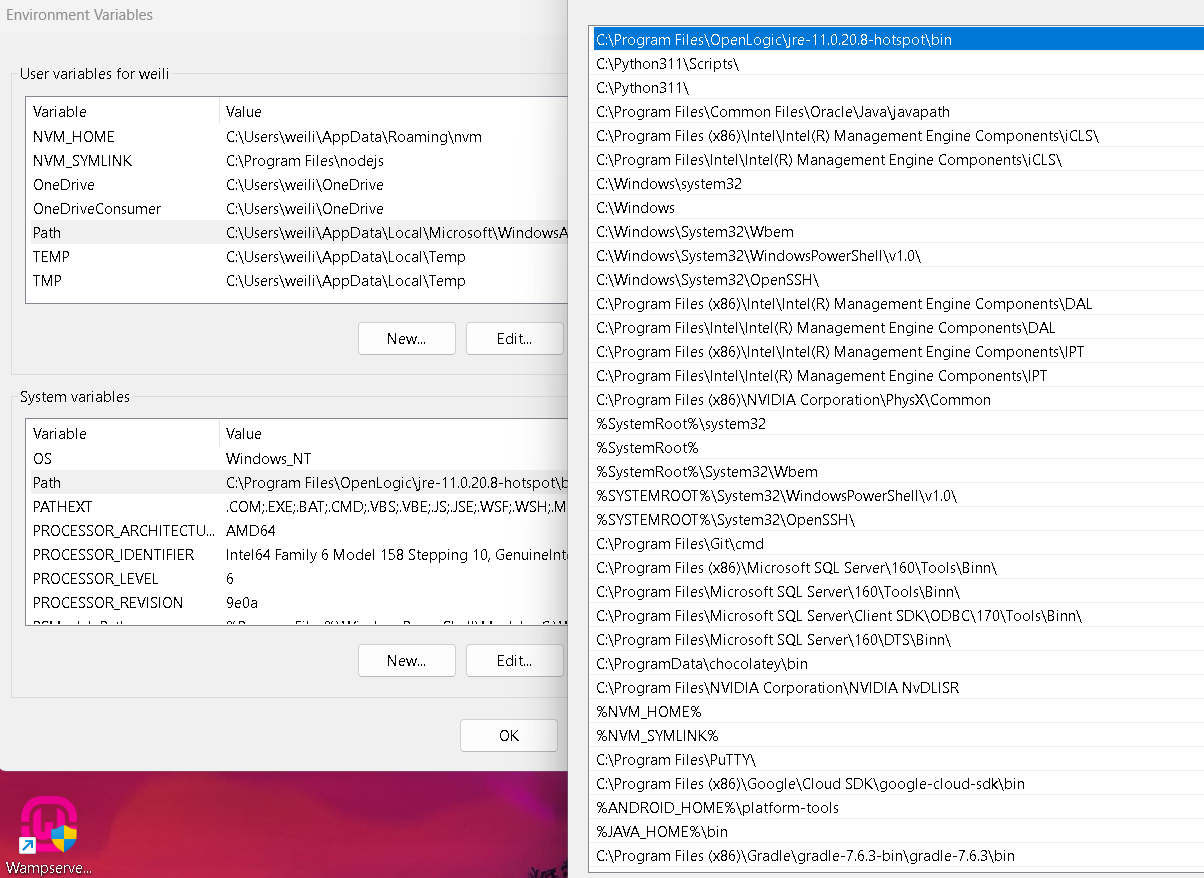
1. To install on your Android mobile device, you can simply send the apk file singapore\_lottery\_ledger.apk to your mobile and install it. If you would like to change the Cordova interface, you can modify the contents inside the www folder found in cordovaAppFolder, then proceed with the next steps below
2. Install Gradle. I am using [Gradle version 7.6.3](https://gradle.org/next-steps/?version=7.6.3&format=bin)
3. Install Java 11. I got mine from [OpenLogic (JDK 11.0.20.8)](https://www.openlogic.com/openjdk-downloads?field_java_parent_version_target_id=406&field_operating_system_target_id=All&field_architecture_target_id=All&field_java_package_target_id=All)
4. On your computer, search for System Variables then click Environment Variables



1. Under User variables, select Path, click Edit, and add a new path to your Gradle bin folder.



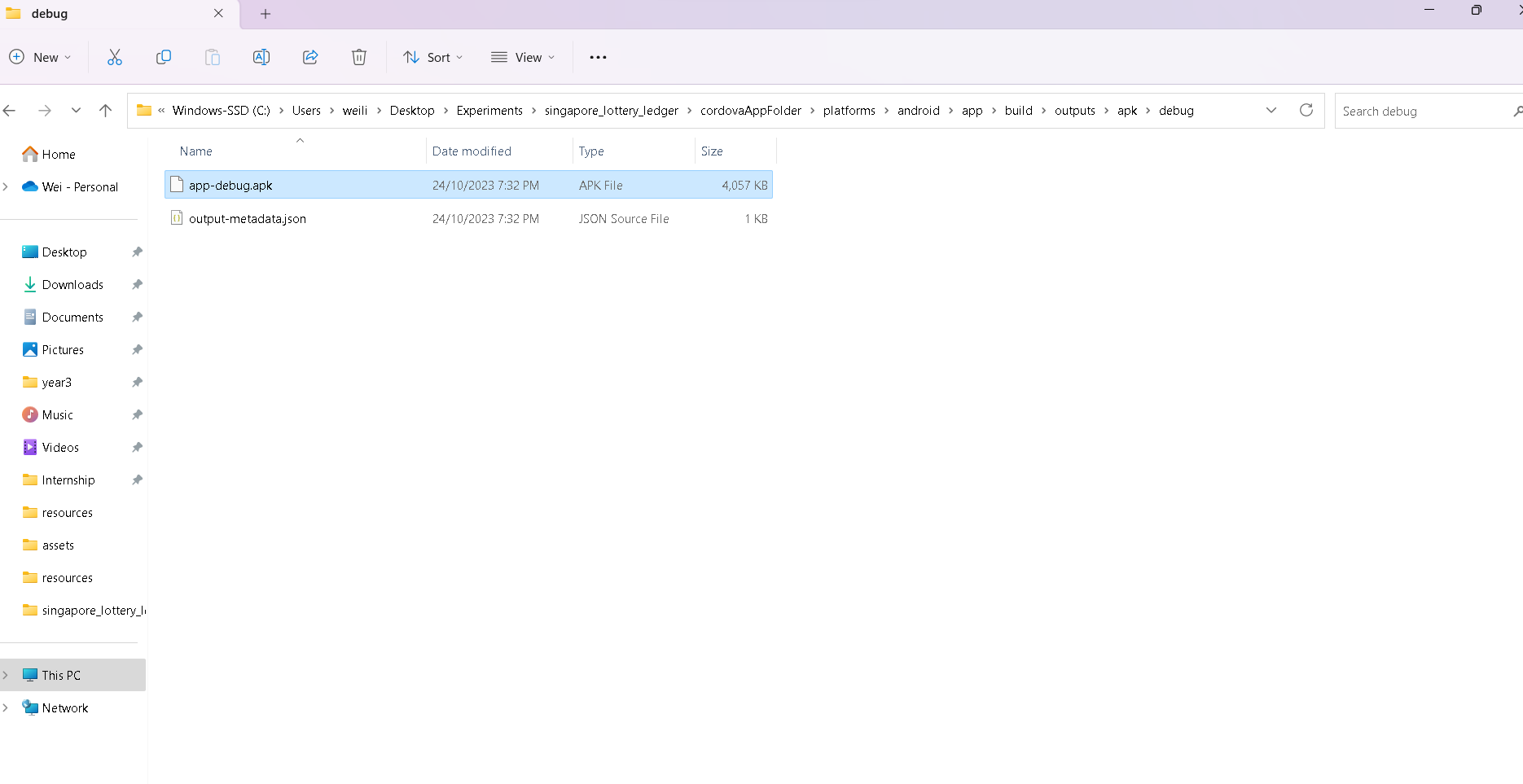
1. Under System variables, select Path, click Edit, and add a new path to both your Gradle bin folder and another one for your Java 11



1. After applying the changes, go back to Visual Studio Code, open a new terminal and run the following commands. Run them one by one.

* cd cordovaAppFolder
* npm install -g cordova
* cordova platform rm android
* cordova platform add android
* cordova build android

You can find the updated apk file in cordovaAppFolder/platforms/android/app/build/outputs/apk/debug. Send it to your mobile device and install it. For subsequent changes, you can just run the command cordova build android, no other commands needed.



## Misc

1. FL0 - Automatic deploy

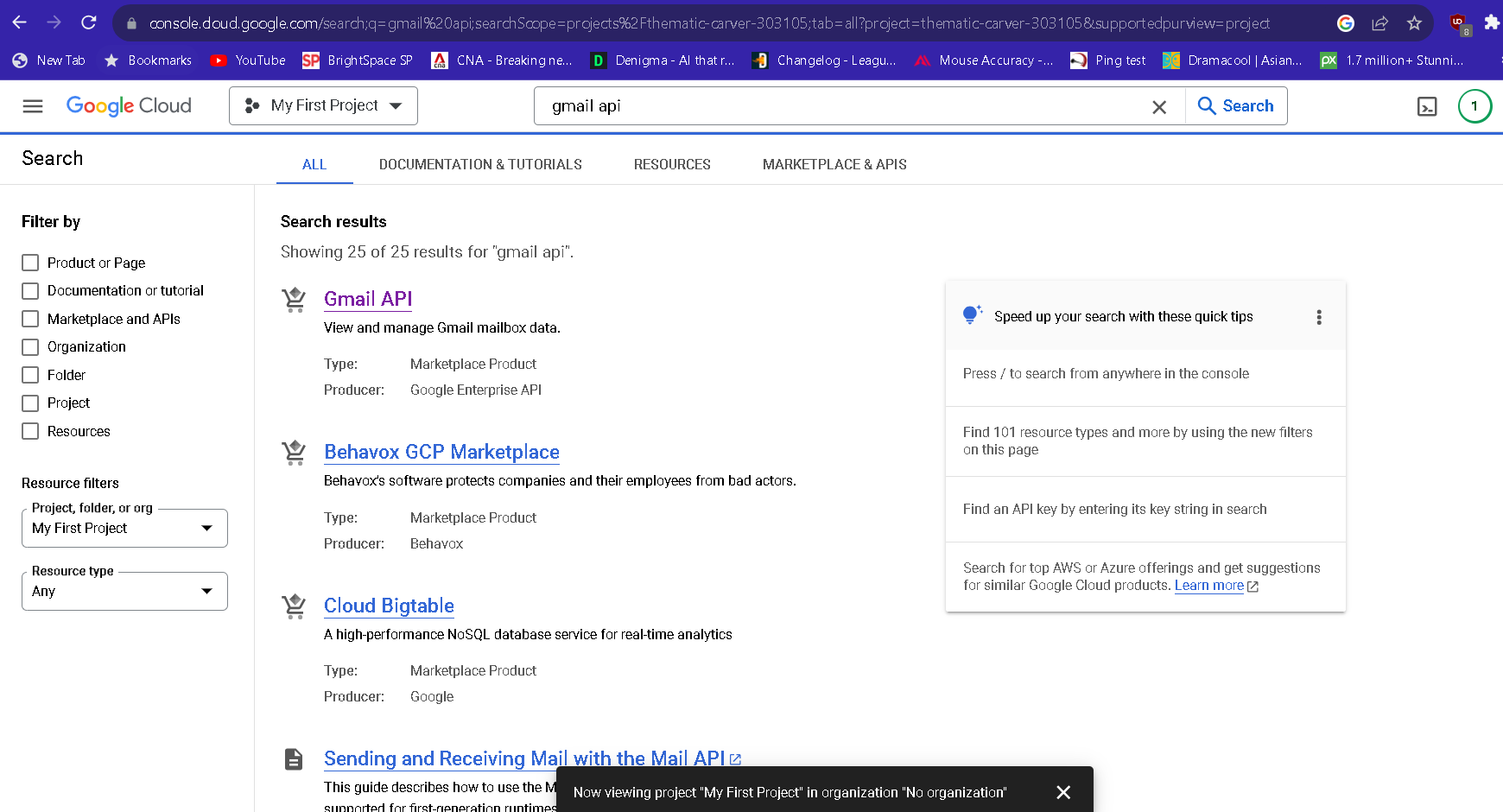
* Note that if you push changes to the Github repository, the web application version and mobile version will be affected as both fetches content from the backend server which is hosted using [FL0](https://www.fl0.com/) and has automatic deploy turned on. FL0 is used to deploy backend applications and database and is relatively new at the time of writing this documentation. You can manage the settings with this login credentials.
* To get the full password, please email the person below.

|  |  |
| --- | --- |
| Email address | weilinquek201@gmail.com |
| Password | 9\*\*\*\*\*\*\*\*\*\*\*\*\*\*l |

1. Google Cloud Platform - Gmail API

* There is a feature that allows user to send emails to the admin at the footer of the application. If you would like to use your own Gmail API, follow the steps below

1. Go to <https://console.cloud.google.com>
2. Create a new project
3. Search for Gmail API and enable it. You will be asked if you want to create credentials. Proceed to create it

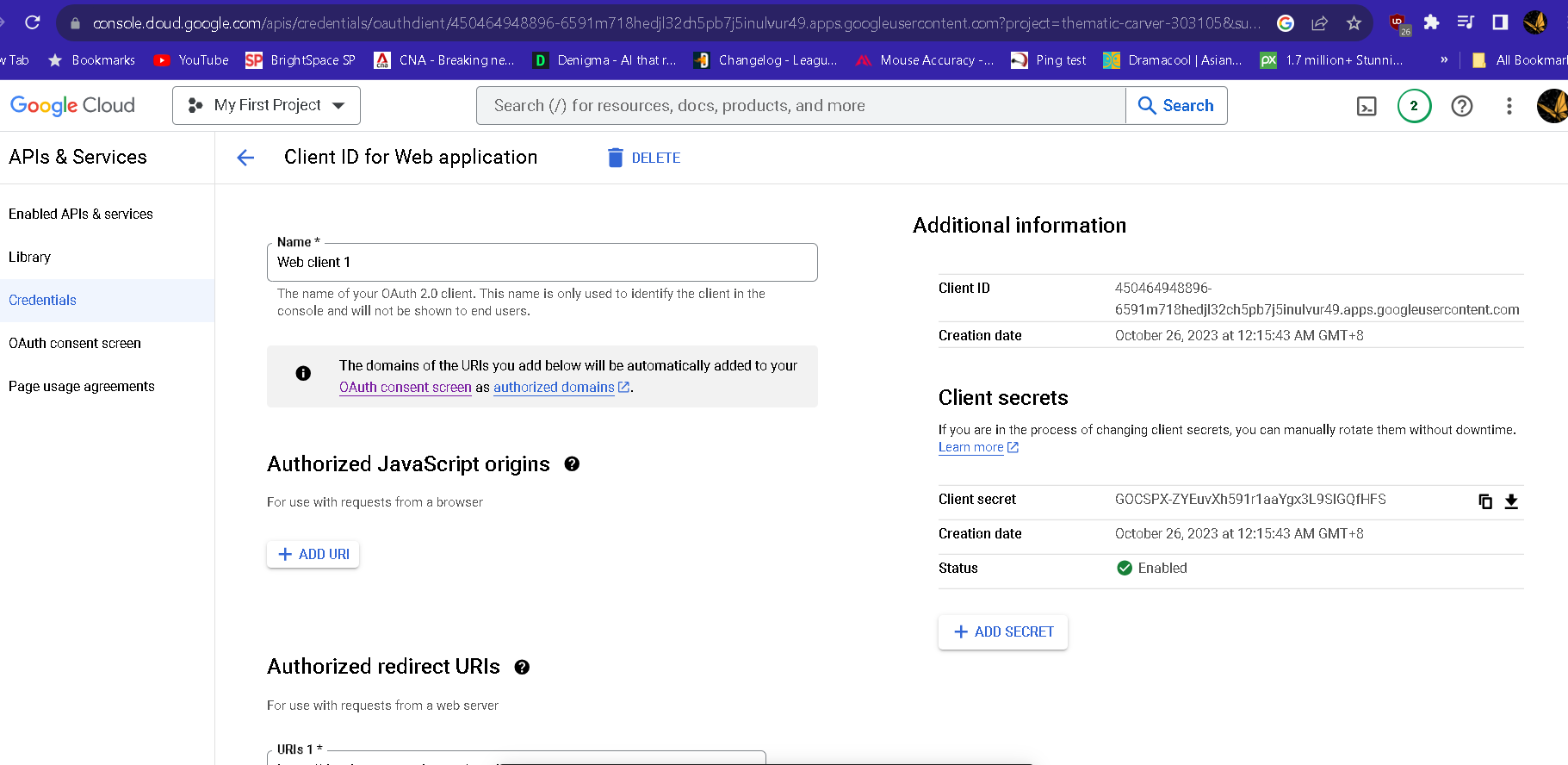


1. Step 1: Credential Type: User data

Step 2: Fill your details

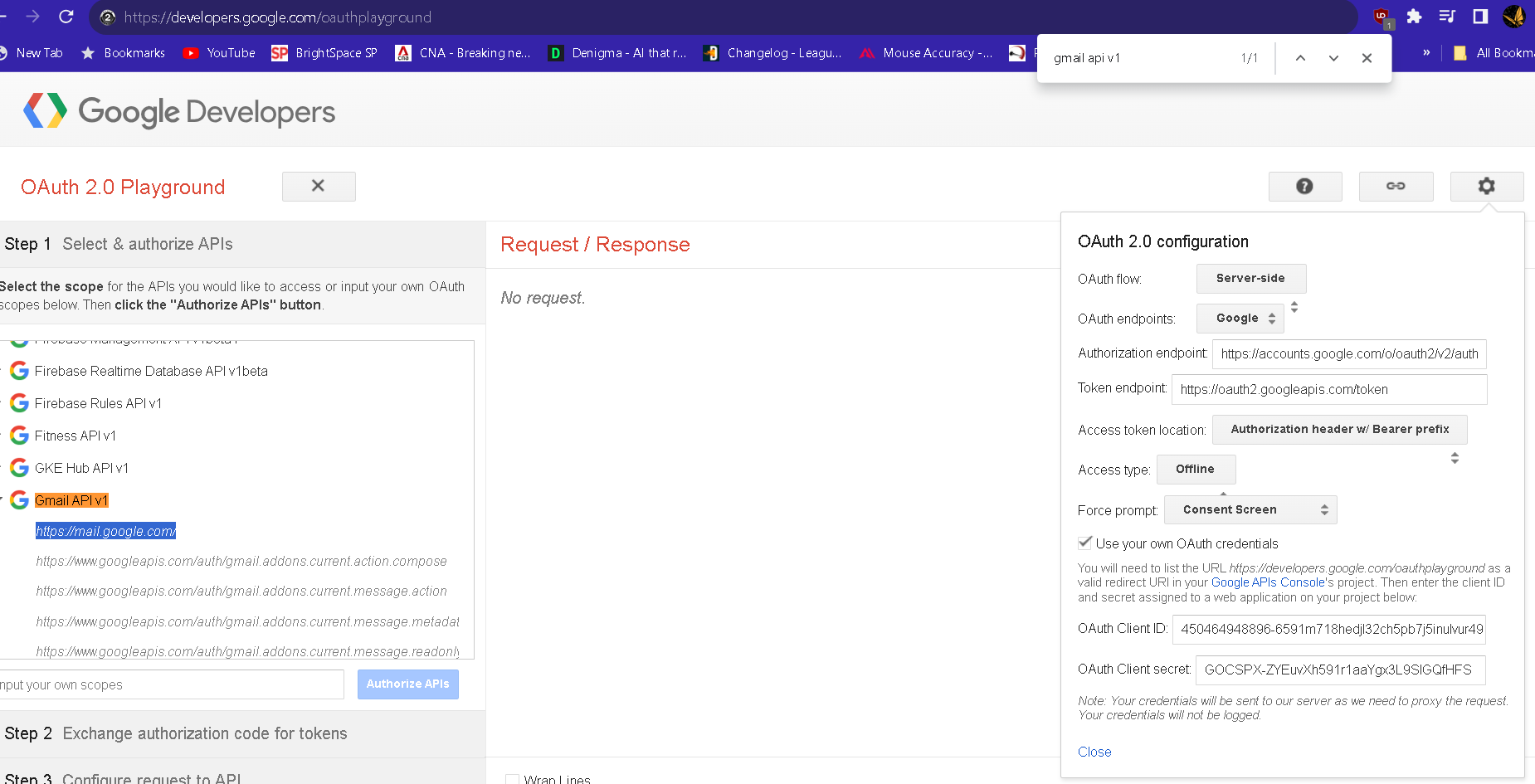
Step 3: Can leave all empty, click Save and continue

Step 4: Application type: Web application, Authorize redirect URLs: Add url: <https://developers.google.com/oauthplayground>. When created, you can view the Client ID and Client secret



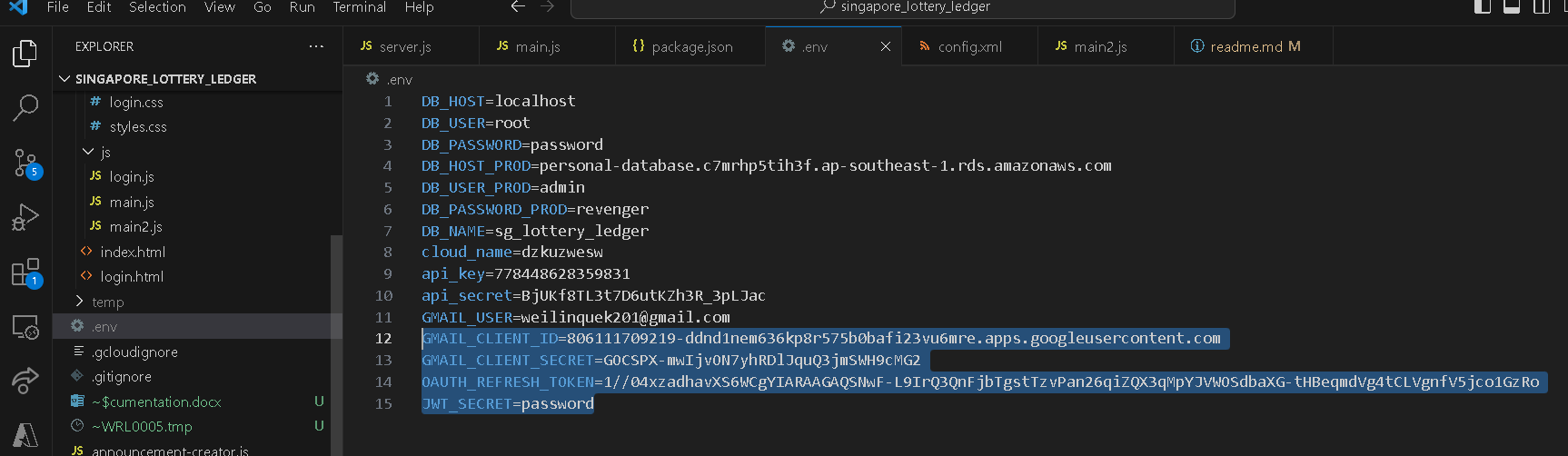
Step 5: Go to the link in the previous step and find Gmail API v1, then select https://mail.google.com/

Step 6: Click Settings icon and check Use your own OAuth credentials, then paste the Client ID and Client secret you have created in Google Cloud Platform



Step 7: Click Authorize APIs, then Exchange authorization codes for tokens. This will be your OAuth refresh token

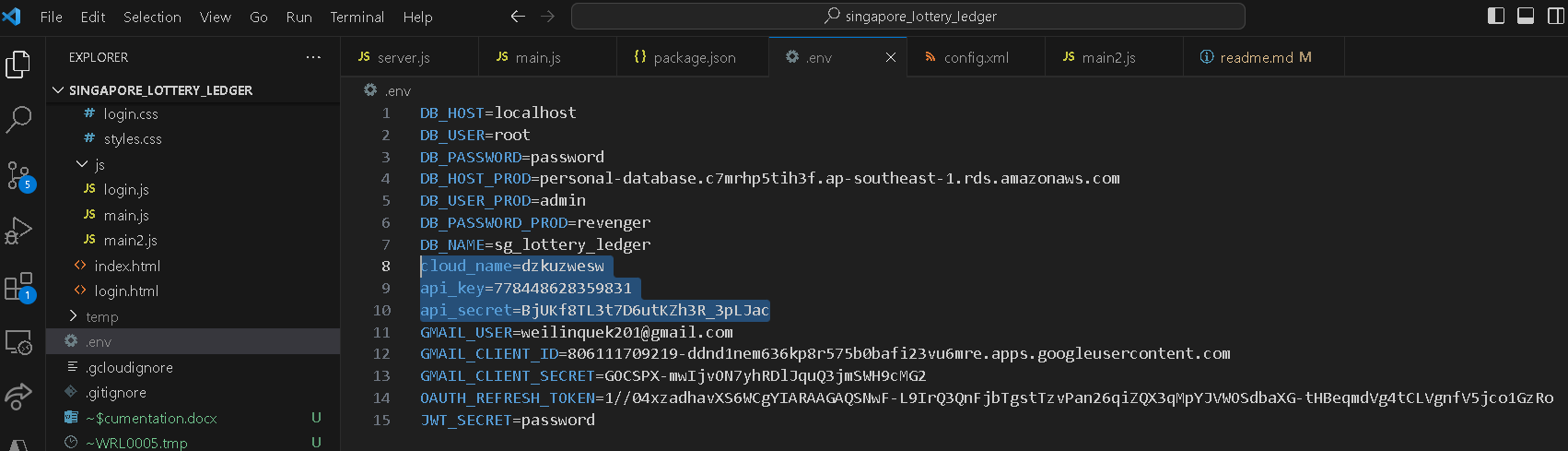
Step 8: Copy and replace these 3 values onto the .env file



1. Cloudinary - Image upload

* There is a feature that allows user to upload betslips in the application. If you would like to use your own Cloudinary API, follow the steps below

1. Go to <https://cloudinary.com/users/login>
2. On the left navigation bar, click Programmable Media > Dashboard
3. Copy the Cloud Name, API Key, API Secret and replace onto the .env file



1. Amazon Web Services – Production database

* To manage this database, follow the steps below

1. Go to <https://aws.amazon.com/>
2. To get the full password, please email the person below.

|  |  |
| --- | --- |
| Email address | weilinquek201@gmail.com |
| Password | 9\*\*\*\*\*\*\*\*\*\*\*\*\*\*l |

1. Create announcements

* To create announcements, follow the steps below

1. In Visual Studio Code, find announcement-creator.js
2. The file contains many comments to guide the usage. On line 29, set const isDevEnvironment to true if you want the announcement for your own computer, false if you want the announcement to be for the live site
3. Announcements can be created for specific users, or for every users registered. Follow through the comments and you will be fine