CS 743 Code How-to's

RSSI-based Indoor Localization using ESP32
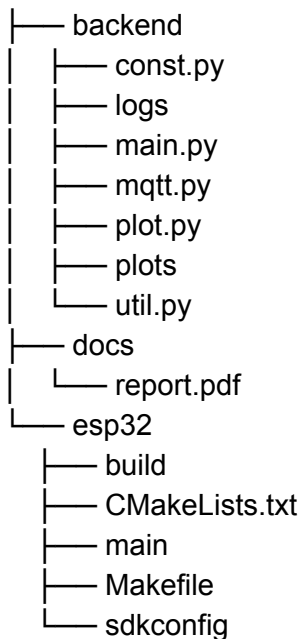
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Directory Structure:

```
Indoor-Localization/
├── backend
│   ├── const.py
│   ├── logs
│   ├── main.py
│   ├── mqtt.py
│   ├── plot.py
│   ├── plots
│   └── util.py
├── docs
│   └── report.pdf
└── esp32
    ├── build
    ├── CMakeLists.txt
    ├── main
    ├── Makefile
    └── sdkconfig
```

Commands:

➔ To burn the code, descend into the folder `esp32`, and run, `$ make -j4 flash`.
➔ To configure the hotspot to be used, use the command `$ make menuconfig`. Go into the submenu `Experiment Configuration` for making the modifications.
➔ To launch the MQTT broker on host machine, descend into the directory `backend/` and run the command `$ python3 main.py -i <ip_address> -p <port_number>`

➔ Here *ip_address* is the ip address of the machine running the MQTT broker and *port_number* is pre-decided, these two are both configured in each of the esp32 boards.
➔ To modify the coordinates of ESP32 Anchor nodes, the path loss model parameters and the time averaging window, modify the `backend/const.py` file