TRAFFIC LIGHT SIMULATION

BATCH-13

SHRI VISHNU ENGINEERING COLLEGE FOR WOMEN

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GROUP MEMBERS

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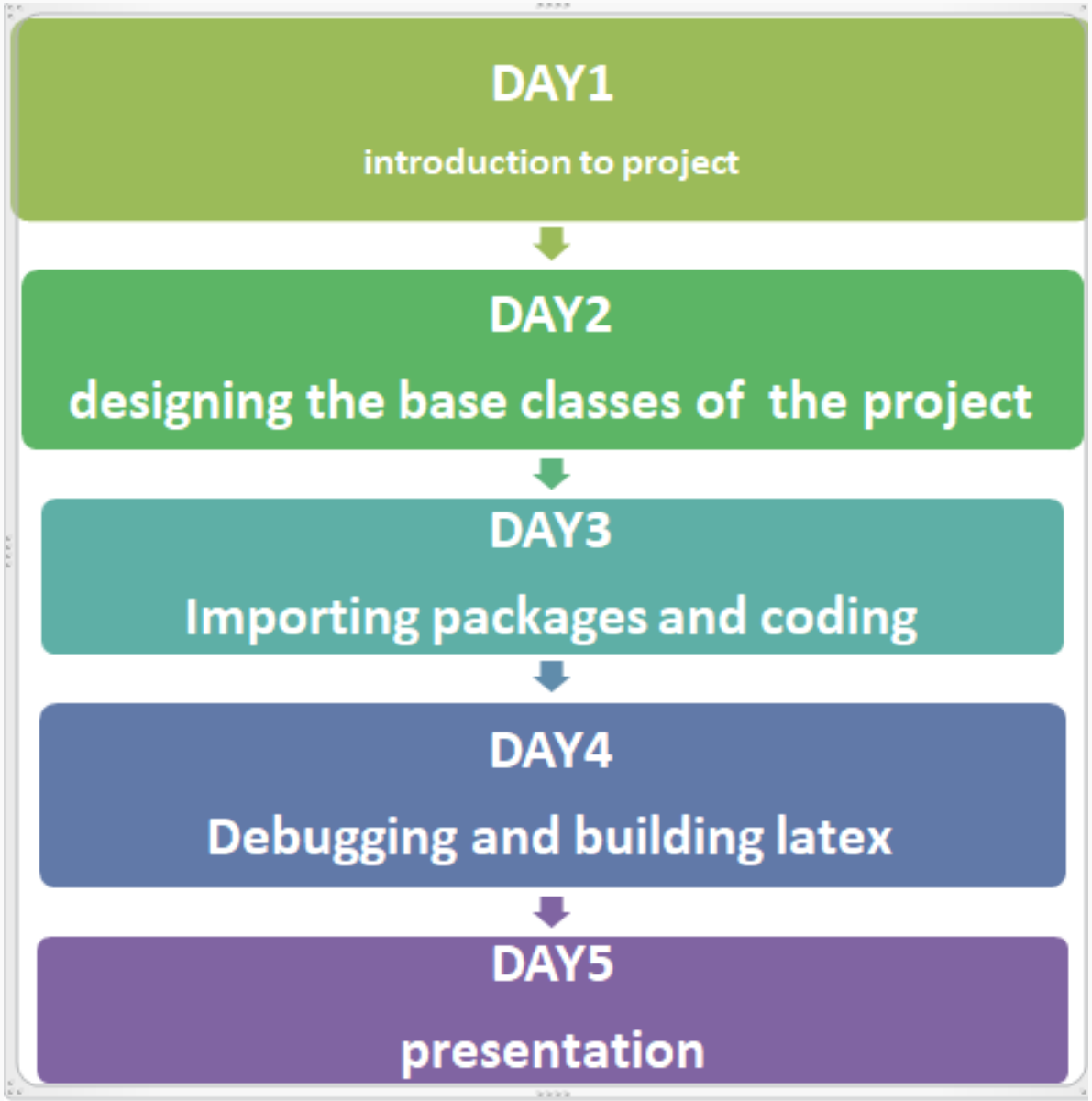
INTRODUCTION

- Road infrastructure planning is always a challenge, with the need to avoid congestion, allow for traffic growth, and meet the requirements of budgets and the city environment.
- Traffic light sequencing and timing, and placement of road network objects (such as parking bays, bus stops, and access lanes), all have a direct influence on traffic flow and capacity.

ARCHITECTURE



DESCRIPTION

- It contains a 4-way intersection with traffic signals controlling the flow of traffic in each direction. Each signal has a timer on top of it which shows the time remaining for the signal to switch from green to yellow,yellow to red , or red to green vehicles such as cars , bikes buses and trucks are generated and their movement is controlled according to the signals and the vehicles around them. This simulation can be further used for data analysis or to visualize AI or ML applications.

CHALLENGES AND OVERCOMING OF CHALLENGES

- We faced difficulty in merging different functions
- We got incorrect output
- We sorted merging different functions by teamwork as we all took responsibility in building the code each contributed in building different functions
- we sorted incorrect output by tracing the code and expecting its output then we modified it after recognizing the error in our code

LEARINGS

- LATEX
- GITLAB

TECHNICAL STACK

- PYTHON

APPROACH

- initializing pygame
- defining some constants that will help for the movement of vehicles
- defining classes

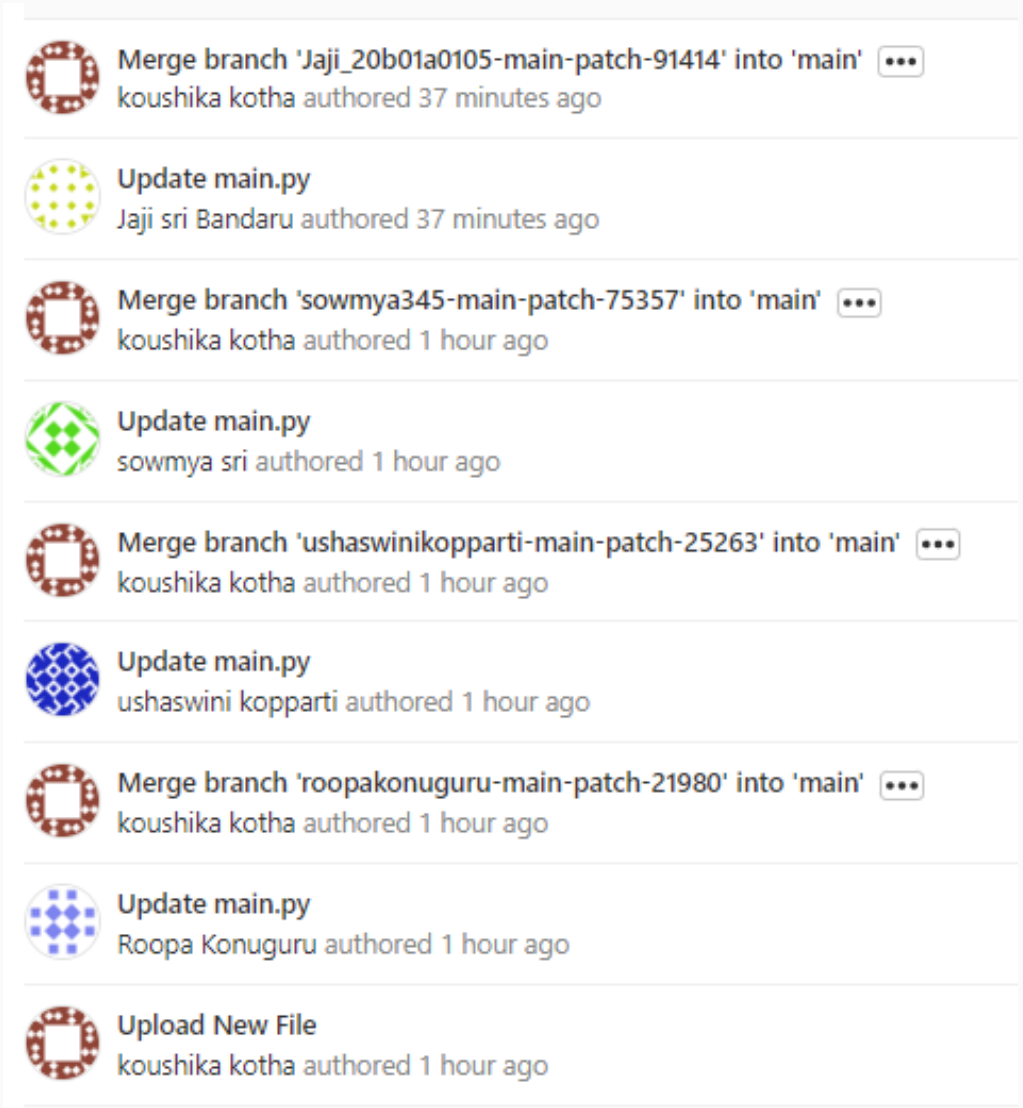
DEMO

SAMPLE OUTPUT

CODE STATISTICS

- Number of lines of code : 245

REPOSITORY


Merge branch 'Jaji_20b01a0105-main-patch-91414' into 'main'
koushika kotha authored 37 minutes ago
Update main.py
Jaji sri Bandaru authored 37 minutes ago
Merge branch 'sowmya345-main-patch-75357' into 'main'
koushika kotha authored 1 hour ago
Update main.py
sowmya sri authored 1 hour ago
Merge branch 'ushaswinikopparti-main-patch-25263' into 'main'
koushika kotha authored 1 hour ago
Update main.py
ushaswini kopparti authored 1 hour ago
Merge branch 'roopakonuguru-main-patch-21980' into 'main'
koushika kotha authored 1 hour ago
Update main.py
Roopa Konuguru authored 1 hour ago
Upload New File
koushika kotha authored 1 hour ago

THANK YOU