IGVC Milestone 6

Task matrix:

Task	Completion %	Viet Dung
Assist other member with simulation	100	100
Refactor the code	100	100
Add obstacles to the simulation	100	100

Task Discussion:

Assist other member with the simulation:

- ▶ Adjust the build script for different Linux distros.
- ▶ When using ROS1 with Python3, the users must specify the location of Python 3.
  - ▶ Different between distros.

Refactor the code:

- ▶ Improve the mapping function.
  - ▶ Previous method:
    - ▶ Extract the list of coordinates of objects (obstacle, lane)
    - ▶ Perform rotation and scaling on the list using transformation matrices.
  - ▶ Current method:
    - ▶ Perform rotation and scaling on the image using OpenCV provided methods.
    - ▶ Extract the coordinates

Adding obstacles:

- ▶ Add the model for obstacle and place obstacles on simulation.

Contribution discussion:

- Viet Dung Nguyen
    - Contact with other members to improve the software
    - Improve the mapping function
    - Create the model for obstacle
    - Change the map.

Lessons learned:

- Learn how to use ROS
  - Writing publisher, subscriber and custom ROS msg and service
- Learn how to use Gazebo for simulation:
  - Design models using specification document
  - Writing plugins for controlling robot
- Learn more about image filtering and mapping

Questions?