User Requirement Specification

Application Description:

**Use case 1: Create a new project**

**Actor**: User

**Goal-level:** Sea-level

**Main Success scenario:**

1.User clicks the button of new project

2.System displays the empty blank space provided with design tools (car, lines, traffic light)

**Extension(s):**

1.

**Use case 2: Saving a project**

**Actor:** User

**Goal-level:** Sea-level

**Main Success scenario:**

1**.**Userclicks the save button

2.System opens the file dialogue from the user desktop

3.User selects the folder and clicks the save button

4.System saves the project

**Extension(s):**

**1.**

**Use case 3: Loading a project**

**Actor:** User

**Goa-level:** Sea-level

**Pre-conditions:** The **project** already saved to the user desktop

**Main Success scenario:**

1**.**User clicks the load button

2.System opens the folder from the user desktop

3.User selects the project

4.System displays the project.

**Extension(s):**

**1.**

**Use case 4: Starting the simulation**

**Actor:** User

**Goa-level:** Sea-level

**Pre-conditions:** The project already designed with the requirement design

**Main Success scenario:**

1. User starts the application

2. User clicks the start button

3. System runs the application

**Extension(s):**

**1.1. User can not start the application**

**1.1.1.** System informs the user that the application cannot be started.

**1.1.2.** User tries to restart the application.

**1.1.3.** Back to step 1 of the use case.

* 1. **User does not want to start the simulation**
     1. User does not press the button ‘Start’.
     2. User exits the application.
     3. End of a use case.

**Use Case 5: Stopping the Simulation**

**Actor:** User

**Goa-level:** Sea-level

**Main Success scenario:**

1. Application is already running

2. User then clicks the stop button

3. System stops the application

**Extension(s):**

* 1. **Application is not running**
     1. User performs the use case named ‘Starting the Simulation’.
     2. After the above-mentioned use case is finished, the user performs ‘Stopping the Simulation’ use case.
     3. End of a use case

2.1 **The user cannot stop the simulation**

2.1.1. User tries to click the ‘Stop’ button.

2.1.2. The simulation does not stop itself.

2.1.3. User then clicks the ‘X’ in the top right corner of the app.

2.1.4. The app exits and the simulation is stopped.

2.1.5. End of a use case.

2.2. **The user does not want to stop the simulation**

2.2.1. User does not press the button ‘Stop’.

2.2.2. The simulation continues until user wants it to stop.

2.2.3. User performs the use case ‘Stopping the Simulation’.

2.2.4. End of a use case.

**Use Case 6: Displaying Traffic Graph**

**Actor:** User

**Goa-level:** Sea-level

**Main Success scenario:**

**Extension(s):**

**1.**

**Use Case 7: Print Traffic Graph**

**Actor:** User

**Goa-level:** Sea-level

**Main Success scenario:**

**Extension(s):**

**1.**