**SCENARIOS:**

**Scenario 1**: Reversing out of a parking spot.

**Scenario Code**: REV101

Arthur gets into his car and starts the car. He puts the car in reverse, and the display begins to show the back camera. The display has a padding on all sides, which turns red, depending on from which side an object is coming close. Arthur takes his foot off the brake and the car begins to reverse. Arthur continues to reverse while he looks at the back through the back camera. Once he is satisfied with how far the car has come out of the parking spot, he can put the car in drive, and the interface will go back to the previous application and display it. He can then turn his steering wheel if he needs to and drive away.

**Scenario 2**: Turning on Heated/Cooling Seats

**Scenario Code**: HCS001

Arthur gets into his car and starts the car. It’s cold and he wants to turn on the heat for his seats. Arthur clicks on the controls button and is prompted with buttons such as heated seat, Air Conditioner, Heater, etc. Arthur selects the heated season icon, and is prompted with Heating/Cooling seats Menu. On the menu, Arthur selects “Heat” for heated seats, “Cool” if he wants cooling seats. He can also select all seats or specific seats, to heat/cool. He can then use the slider to choose the temperature he wants for the heated/cooling seat. The temperature is displayed and Arthur can choose to view the temperature in Celsius or Fahrenheit, by changing it in the settings menu.

**Scenario 3**: Turning on Air Conditioner/Heater

**Scenario Code**: ACH001

Arthur gets into his car and starts the car. It’s hot outside and he wants to turn on the Air Conditioner. Arthur clicks on the controls button and is prompted with buttons such as heated seat, Air Conditioner, Heater, etc. Arthur selects the Fan icon for Air Conditioner/Heater, and is prompted with Heating/Cooling Menu. On the Menu, Arthur is prompted with a slider that goes Red to Blue from left to right, representing the heat to cool. Arthur can also select which Fan the air to come out of, such as windshield, feet, back fans, etc. He can then select the speed of the fan using fan speed slider and other options. The temperature of inside of the car is displayed and arthur can choose to view the temperature in Celsius or Fahrenheit, by changing it in the settings menu.

**Case 1**:

Use Case Name: Reversing out of a parking spot.

Short Description: The driver is able to reverse the car and look at the rear through the rear camera, ensuring no object is behind as the Arthur reverses.

Actors: The driver

Trigger: The driver wants to get out of the parking spot and is parked perpendicular.

Precondition: The car is running, an automatic, in parking mode and the vehicle interface is functional.

Postcondition: The car is out of the parking spot successfully and the Arthur can drive away.

Results: The car is out of the parking lot.

Outline:

**Main Success Scenario**:

1. ) The drive puts the car in reverse, and the display begins to show the back camera.

2.) The driver takes their foot off the brake and the car begins to reverse.

3.) The driver continues to reverse and look at the back through the back camera.

4.) Once the driver is satisfied with how far the car has come out of the parking spot, he can put the car in drive, and the interface will go back to the previous application and display it.

5.) The driver can then turn the steering wheel if needed to turn and drive away.

**Alternate Flow**:

1.) The driver puts the car in reverse, and the display begins to show the back camera.

2.) The driver takes their foot off the brake and the car begins to reverse.

3.) The driver continues to reverse and look at the back through the back camera.

4.) A car approaches from the right side and the display’s right margin begins to flash red and car makes a beeping alarm sound. The closer the object gets, the quicker the beeping alarm becomes. At this point, the driver can press on the brake.

5.) If the object is within 1 foot, the car will press the brake itself. The car will not move until the object has moved or is farther than 1 foot. Once the object has moved, the padding will no longer show red and the car will stop beeping. The car will begin reversing once the driver puts their foot back on the brake pedal.

6.) If the driver had their foot on brake pedal already, they’ll need to take it off and push the brake pedal again, in order to notify the car that they acknowledge that the car stopped because an object got close to the car and they’re ready to continue reversing the car.

7.) Once the driver is satisfied with how far the car has come out of the parking spot, the driver can put the car in drive, and the interface will go back to the previous application and display it.

8.) The driver can then turn the steering wheel if needed to and drive away.

**Case 2**:

Use Case Name: Turning on Heated/Cooling Seats.

Short Description: The driver is able to turn on heated seats through the display.

Actors: The driver

Trigger: The driver is feeling cold and wants to turn on heated seats..

Precondition: The car is running and the vehicle interface is functional.

Postcondition: The heated seats are on.

Results: The driver will begin to feel warmer as the seats become warmer.

Outline:

**Main Success Scenario**:

1.) The driver clicks on the controls button and is prompted with buttons such as heated seat, Air Conditioner, Heater, etc.

2.) The driver selects the heat/cool seat icon, and is prompted with Heating/Cooling seats Menu.

3.) On the menu, the driver selects “Heat” for heated seats.

4.) The driver then selects the driver seat to heat.

5.) The driver then uses the slider to choose the temperature he wants for the heated seat. The temperature is displayed.

**Alternate Flow**:

1.) The driver clicks on the controls button and is prompted with buttons such as heated seat, Air Conditioner, Heater, etc.

2.) The driver selects the heat/cool seat icon, and is prompted with Heating/Cooling seats Menu.

3.) On the menu, the driver selects “Cool” for cooling seats.

4.) The driver then selects the driver seat to cool.

5.) The driver then moves the slider bar to the right (Cooling side) to choose the temperature he wants for the cooling seat. The temperature is displayed.

**Case 3**:

Use Case Name: Turning on Air conditioner/Heater.

Short Description: The driver is able to turn on heated seats through the display.

Actors: The driver

Trigger: The driver is warm and wants to turn on air conditioner.

Precondition: The car is running and the vehicle interface is functional.

Postcondition: The air conditioner is on.

Results: The driver will begin to feel warmer as the seats become warmer.

Outline:

**Main Success Scenario**:

1.) The driver clicks on the controls button and is prompted with buttons such as heated seat, Air Conditioner, Heater, etc.

2.) The driver selects the Fan icon for Air Conditioner/Heater, and is prompted with Air Conditioner/Heater Menu.

3.) On the Menu, the driver is prompted with a slider that goes Red to Blue from left to right, representing the heat to cool. The driver moves the slider to the cool (Blue) side.

4.) The driver selects the driver side fan, for the air to come out of.

5.) The driver then moves the slider bar all the way to the right, for fan speed.

6.) The temperature inside of the car is displayed.

**Alternate Flow**:

1.) The driver clicks on the controls button and is prompted with buttons such as heated seat, Air Conditioner, Heater, etc.

2.) The driver selects the Fan icon for Air Conditioner/Heater, and is prompted with Air Conditioner/Heater Menu.

3.) On the Menu, the driver is prompted with a slider that goes Red to Blue from left to right, representing the heat to cool. The driver moves the slider to the left (Hot) side.

4.) The driver selects the windshield fan, for the air to come out of.

5.) The driver then moves the slider bar all the way to the right, for fan speed.

6.) The temperature inside of the car is displayed.

**Persona**:

-User: Arthur Morgan

-Age: 35

-Education: University

-Debts: $10,000

-Occupation: 3D Animator - Full time

-Income: $58,000/Year, 40hrs/week. Middle-class background.

-Interests: Art, Music, Video/Board Games.

-Goals: Continue working as 3D Animator towards the Animation Director position, Have another child in life.

(**Ask team members if they’ve done something similar menu wise, so the everything controls related can go in one place. If headlights are being moved to UI, add them in controls**)