

# **RouteSAV USER MANUAL**

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## **Introduction**

The main objective of RouteSAV is to provide an optimum travel route for drivers to shuttle tourists from Changi Airport Terminal 3 to their respective hotels. This user manual aims to aid you while using our prototype for navigation.

The routes will be suggested based on 4 different matrices. These matrices include time taken to travel to the selected destination, cost, distance, and fuel consumption for the entire journey.

Currently, our program is able to compute routes to and fro Changi Airport Terminal 3, ibis Budget Singapore Pearl, Min Wah Hotel, and Amrise Hotel.

## **Notice**

Do note that the program might take a while to load. In the event, that the program hangs or pauses, simply close this program and run it again. Do give it some time to load before you attempt to press the button.

## **Start-Up Page**

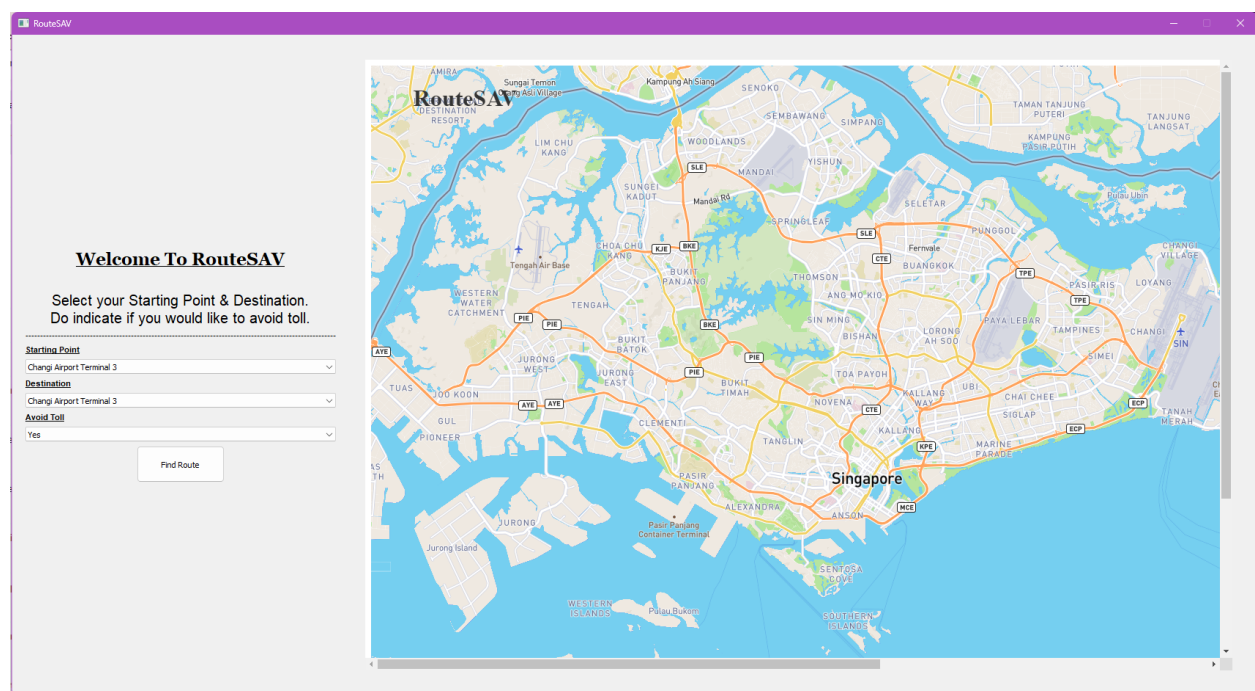


Figure 1. Load Up Page

## **Step-by-Step Guide**

### **Step 1**

Ensure that your starting point is correct before selecting the destination. In any event, if the starting point is incorrect, you may change the location with the help of the drop box. The options will be shown in Figure 2.

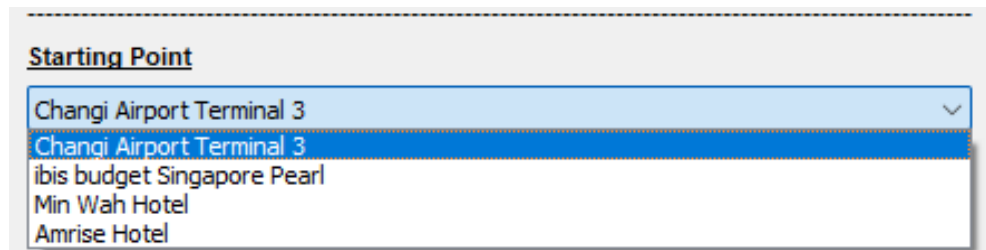


Figure 2. Options for Starting Point

### **Step 2**

After selecting your starting point, you may select your destination in the following dropbox.

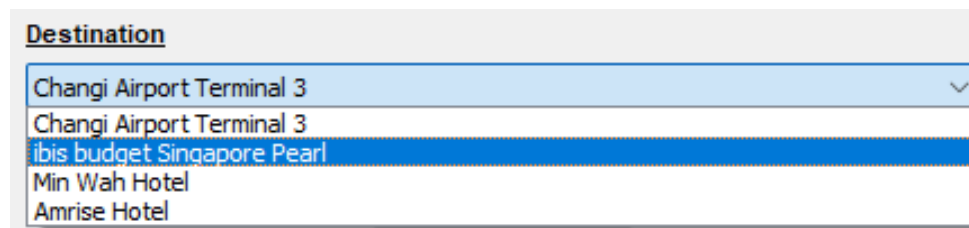


Figure 3. Options for Destination

### **Step 3**

After selecting your starting point and destination, you may select if you want to avoid the toll using the dropdown box provided.

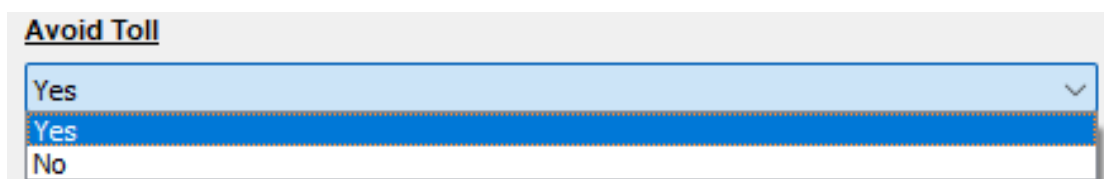
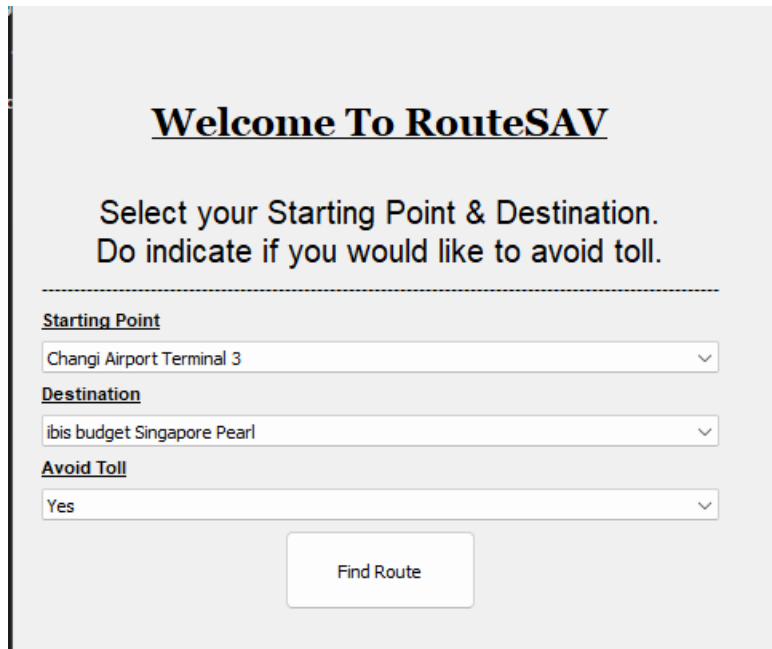


Figure 4. Option for Avoid Toll

#### Step 4

After you have made the above selection, you may proceed to click on the “Find Route” button to compute and display the route you have selected.



**Welcome To RouteSAV**

Select your Starting Point & Destination.  
Do indicate if you would like to avoid toll.

---

**Starting Point**

Changi Airport Terminal 3

**Destination**

ibis budget Singapore Pearl

**Avoid Toll**

Yes

Find Route

Figure 5. Zoomed-In User Interface

## Outcome

### Expected Result

After clicking the button, you can see 2 routes suggested for users. This will happen when all the options are selected correctly without any overlaps.

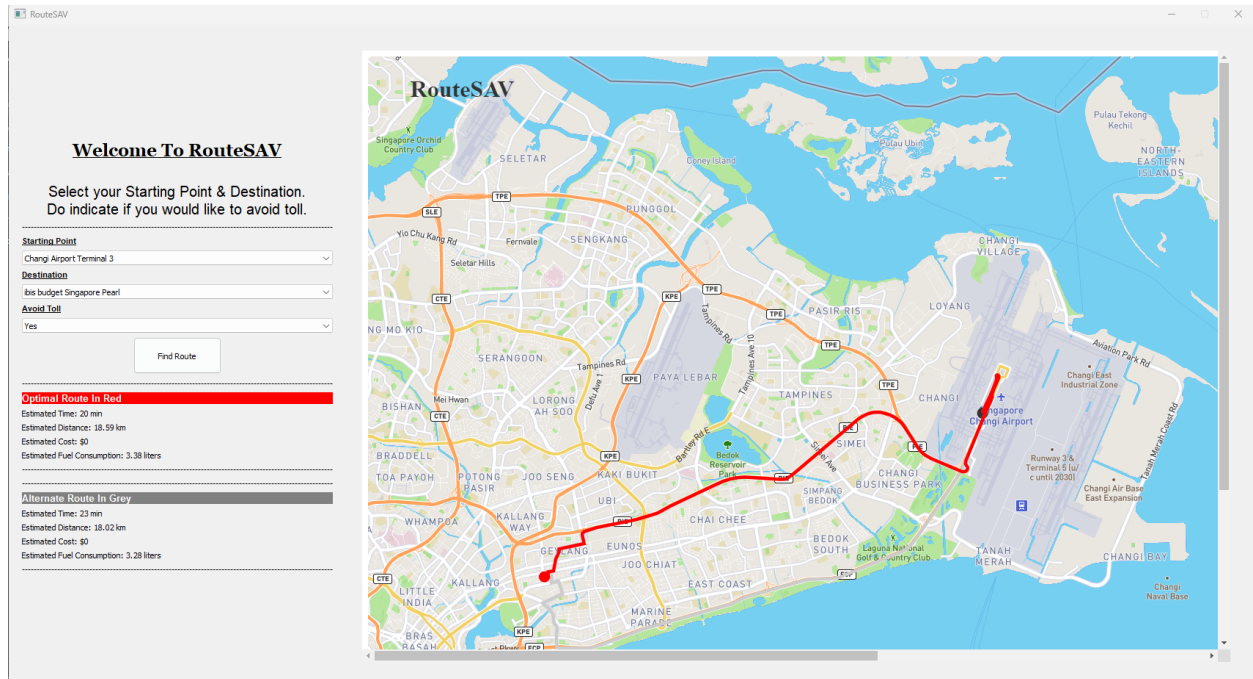


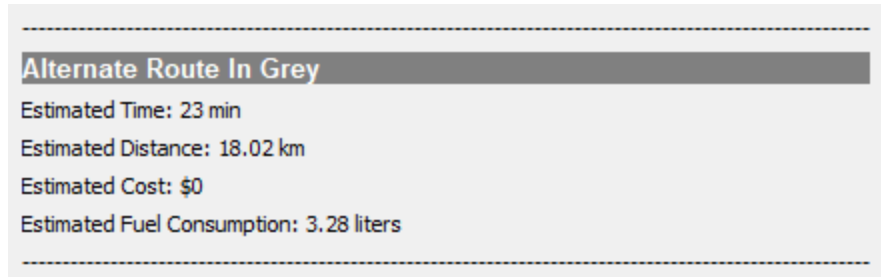
Figure 6. Expected Result

### Explanation of the Expected Result

The route shown in red would be the suggested optimal route based on the metrics.



Figure 7. Metrics of Optimal Route (Zoomed In)



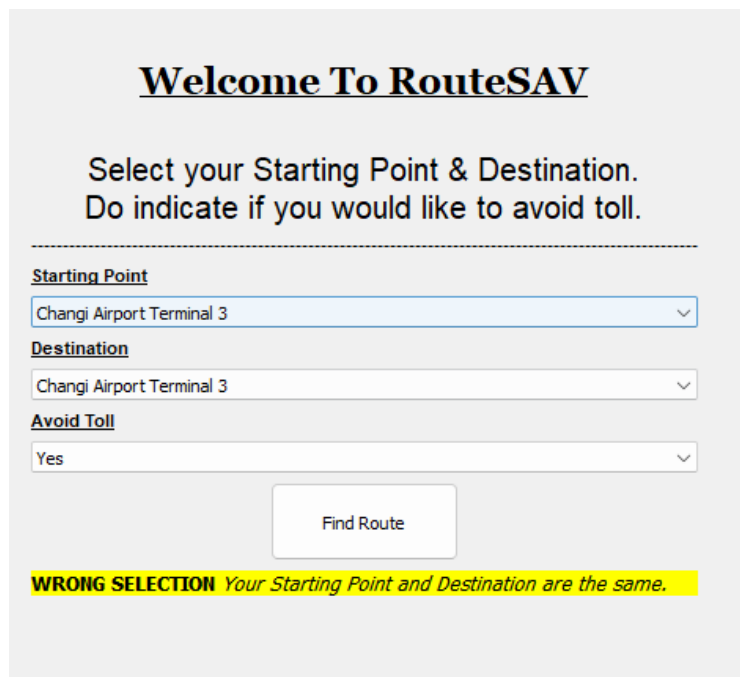
A screenshot of a web application showing route metrics. The title 'Alternate Route In Grey' is in a dark grey bar. Below it, four metrics are listed: 'Estimated Time: 23 min', 'Estimated Distance: 18.02 km', 'Estimated Cost: \$0', and 'Estimated Fuel Consumption: 3.28 liters'. The entire content is enclosed in a light grey box with dashed lines at the top and bottom.

Alternate Route In Grey
Estimated Time: 23 min
Estimated Distance: 18.02 km
Estimated Cost: \$0
Estimated Fuel Consumption: 3.28 liters

Figure 8. Metrics of Alternate Route (Zoomed In)

## Error Message

In the event, that you choose the same location for both the starting point and destination for our application. An error message will appear in yellow, stating that you have made the wrong selection.



A screenshot of the RouteSAV application interface. At the top, it says 'Welcome To RouteSAV'. Below that, it prompts the user to 'Select your Starting Point & Destination. Do indicate if you would like to avoid toll.' There are three dropdown menus: 'Starting Point' (Changi Airport Terminal 3), 'Destination' (Changi Airport Terminal 3), and 'Avoid Toll' (Yes). A 'Find Route' button is below these. At the bottom, a yellow error message states: 'WRONG SELECTION Your Starting Point and Destination are the same.'

**Welcome To RouteSAV**

Select your Starting Point & Destination.  
Do indicate if you would like to avoid toll.

Starting Point  
Changi Airport Terminal 3

Destination  
Changi Airport Terminal 3

Avoid Toll  
Yes

Find Route

**WRONG SELECTION** *Your Starting Point and Destination are the same.*

Figure 9. Error Message (Zoomed-In)

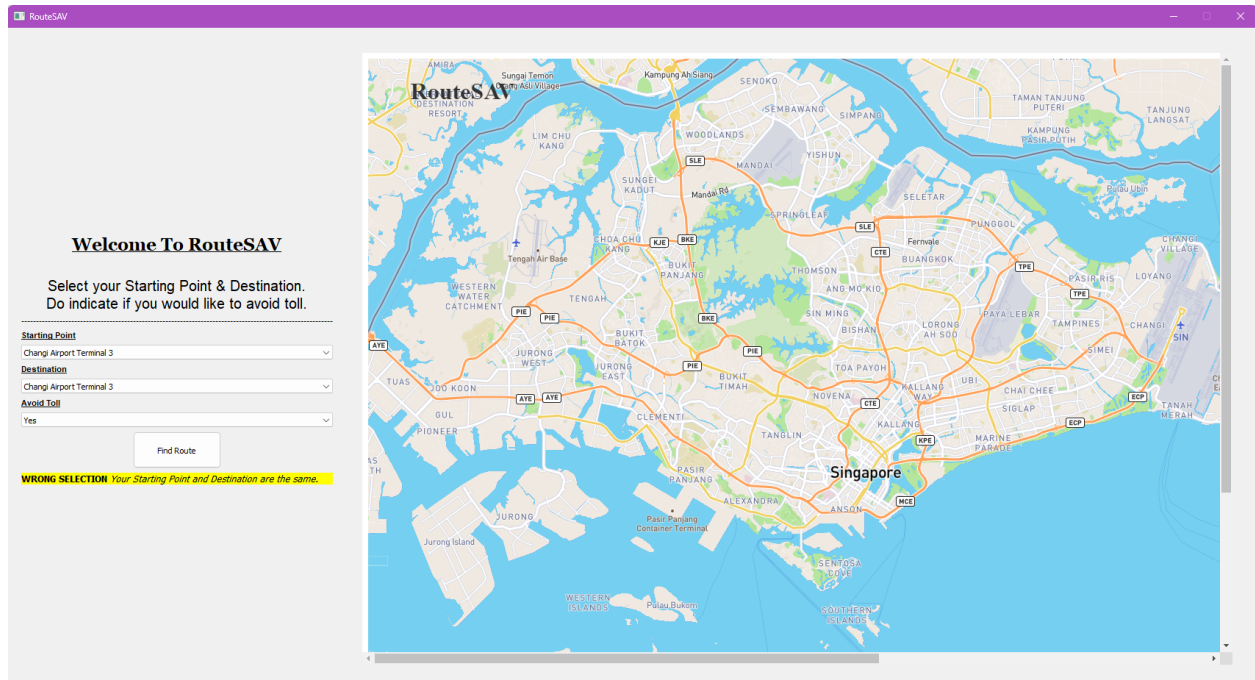


Figure 10. Error Message

### Solution

When you see an error message, simply just change either the starting point or your destination to your preferred place. Thereafter you will still be able to click on the button and have the expected result for this program.

**THANK YOU FOR USING OUR PROGRAM!**

## **Frequently Asked Question**

### **How do I set up and navigate this program?**

You may set up the program by running the file, thereafter, navigate through the guide provided in this user manual.

### **What are the system requirements for running the program?**

Ensure that your device has an internet connection at the same time visual studio code or pycharm to run this program.

### **How do I troubleshoot common errors or issues in the program?**

You may take a look at the notice. In the event, that you are still unable to run, do email any of us.