

## LAB 2:

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Class: SE1709

### 1. Identify input/output:

- Input: choose feature

+ In case 1: minutes drive, average speed (miles/h) and gallons of gas used.

+ In case 2: radius of tires in inches and revolutions made.

+ In case 3: radius of tires in inches, revolutions made and gallons of gas used.

- Output:

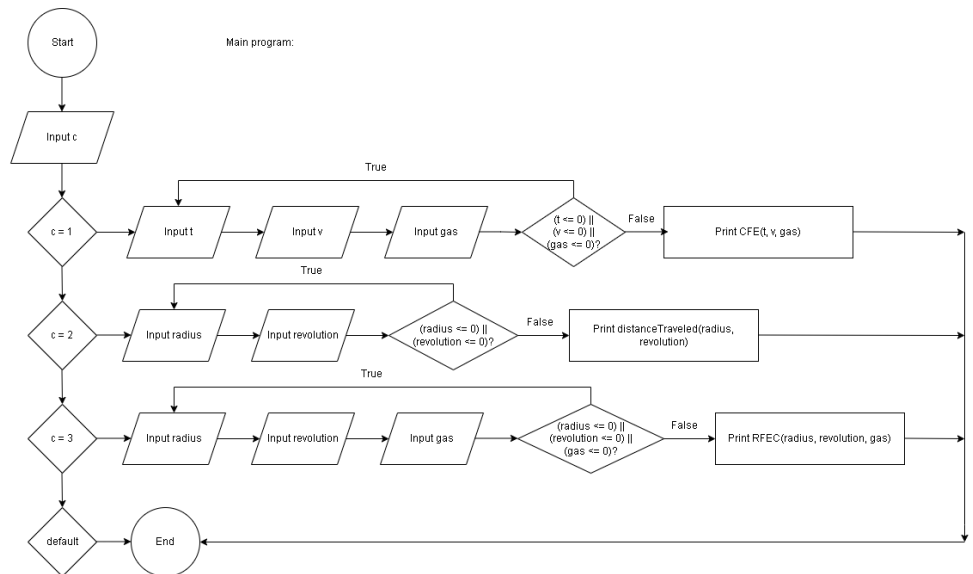
+ In case 1: Fuel Economy

+ In case 2: Distance traveled

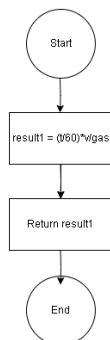
+ In case 3: Fuel Economy

### 2. UML:

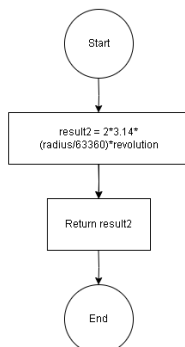
t: number of minutes the car has traveled  
v: the speed of the car  
gas: the gasoline consumed



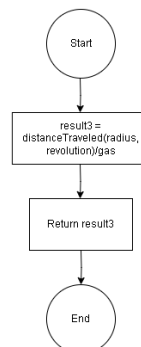
CFE(t, v, gas):



distanceTraveled(radius, revolution)



RFEC(radius, revolution, gas):



### 3. Result:

```
1 - Calculating Fuel Economy
2 - Calculating Distance Traveled
3 - Revised Fuel Economy Calculation

Choice feature: 1

How many minutes did you drive?
30
What was the average speed of the car during that time?
40
How many gallons of gas did your car use?
0.8
Your car averaged 25.00 miles per gallon.
-----
Process exited after 11.87 seconds with return value 0
Press any key to continue . . .
```

```
1 - Calculating Fuel Economy
2 - Calculating Distance Traveled
3 - Revised Fuel Economy Calculation

Choice feature: 2

What is the radius of your tires, in inches?
16
How many revolutions did your car's tire make?
3151
Your car traveled 5.00 miles.
-----
Process exited after 9.065 seconds with return value 0
Press any key to continue . . .
```

```
1 - Calculating Fuel Economy
2 - Calculating Distance Traveled
3 - Revised Fuel Economy Calculation

Choice feature: 3

What is the radius of your tires, in inches?
16
How many revolutions did your car's tire make?
3151
How many gallons of gas did your car use?
0.11
Your car averaged 45.45 miles per gallon.
-----
Process exited after 17.3 seconds with return value 0
Press any key to continue . . .
```