#uberCars.py

class Car:

""" Car is the baseclass. It contains a method to calculate the fare. Car types derive from this class"""

def \_\_init\_\_(self):

pass

speed = 0

distance\_covered =0

rate =0

#function to set the distance travelled

def set\_distance(self,dist):

self.distance\_covered=dist

#function to calculate fare

def fare(self):

return self.rate\*self.distance\_covered

class Sedan(Car):

"""Car Type is Sedan. Subclass of Car. Has a rate of Rs.12 per Km"""

car\_type ="Sedan"

def \_\_init\_\_(self):

print("Sedan has been alloted to you.")

self.rate= 12

self.speed=40

class Mini(Car):

"""Car Type is Mini. Subclass of Car. Has a rate of Rs.10 per Km"""

car\_type ="Mini"

def \_\_init\_\_(self):

print("Mini has been alloted to you")

self.rate= 10

self.speed=40

class Limo(Car):

"""Car Type is Limousine. Subclass of Car. Has a rate of Rs.35 per Km"""

car\_type ="Limousine"

def \_\_init\_\_(self):

print("Limo has been alloted to you")

self.rate= 35

self.speed=40

class Innova(Car):

"""Car Type is Innova. Subclass of Car. Has a rate of Rs.24 per Km"""

car\_type ="Innova"

def \_\_init\_\_(self):

print("Innova has been alloted to you")

self.rate= 24

self.speed=40

class Indica(Car):

"""Car Type is Indica. Subclass of Car. Has a rate of Rs.12 per Km"""

car\_type ="Indica"

def \_\_init\_\_(self):

print("Indica has been alloted to you")

self.rate= 12

self.speed=40

class UberShare(Car):

"""Car Type is UberShare. Subclass of Car. Has a rate of Rs.5 per Km"""

car\_type ="UberShare"

def \_\_init\_\_(self):

print("UberShare has been alloted to you")

self.rate= 5

self.speed=40

#trip.py

#imports the various cars from uberCars

from uberCars import Sedan,Mini,Limo,Innova,Indica,UberShare

class Main\_trip:

#constructor assigns the id, starting place and destination of the trip.

def \_\_init\_\_(self,ident,start,stop):

self.id = ident

self.start = start

self.destination = stop

self.status = "In Progress"

#Creates an object by callling the appropriate subclass of car object

def choose\_car(self,car\_name):

str1= car\_name + "()"

self.car= eval(str1) #evaluates the expression

#updates the status of the ride

def end\_ride(self):

self.status ="Ride Ended"

#Main.py

import trip

car\_dict = {"1":"Sedan","2":"Mini","3":"Limo","4":"Innova","5":"Indica","6":"UberShare"}

loop = True

trip\_id=100

id1=0

st\_trip = []

while(loop):

choose\_menu = input("Enter a choice:\t1. Book a Ride\t2. Calculate Fare & End a Ride\t3. Get Status of a Ride\t4. Exit\n")

if(choose\_menu not in ['1','2','3','4']):

print("Invalid Input Given")

exit(0)

if choose\_menu=='1':

car\_choice= input("Choose a car:\t1.Sedan\t2.Mini\t3.Limo\t4.Innova\t5.Indica\t6.UberShare\n")

if car\_choice not in ['1','2','3','4','5','6']:

print("Invalid Choice Entered")

exit(0)

start = input("Enter Starting Place: ")

stop = input("Enter Destination: ")

st\_trip.append(trip.Main\_trip(trip\_id,start,stop))

st\_trip[id1].choose\_car(car\_dict[car\_choice])

print("Your trip has started")

print("Your trip id is: ",st\_trip[id1].id)

id1 += 1

trip\_id +=1

c=input()

elif choose\_menu =='2':

query\_id1 = int(input("Enter the trip id: "))

id2 = query\_id1-100

dist =int(input("Enter the distance travelled: "))

st\_trip[id2].car.set\_distance(dist)

print("Your Trip id is: %d"%(st\_trip[id2].id))

print("Vehicle used: "+st\_trip[id2].car.car\_type)

print("Your Starting Place: "+ st\_trip[id2].start)

print("Your Destination: "+ st\_trip[id2].destination)

print("Your fare is: Rs.",end='')

print(st\_trip[id2].car.fare())

st\_trip[id2].end\_ride()

print("Ride Ended")

c=input()

elif choose\_menu=='3':

query\_id2 = int(input("Enter your Trip id: "))

id3 = query\_id2 -100

print("The vehicle is: "+st\_trip[id3].car.car\_type)

print("The Starting Place of your ride is: "+st\_trip[id3].start)

print("The Destination of your ride is: "+st\_trip[id3].destination)

print("The Status of your ride is: "+st\_trip[id3].status)

c =input()

else:

loop = False