***Methods Pseudo code:***

* **Person Class Methods**

**getDetails**

OUTPUT “Enter the person’s full name”

INPUT fullname [string]

OUTPUT “Enter the person’s phone number”

INPUT phoneNum [string]

**End getDetails**

* **Customer Class Methods**

**getCustDetails**

OUTPUT “Enter the passenger’s pick up point”

INPUT source [string]

OUTPUT “Enter the passenger’s destination”

INPUT destination [string]

OUTPUT “Enter the number of passengers”

INPUT passengerNum [positive whole number]

OUTPUT “Enter the pick up time in the format hh:mm”

INPUT pickUpTime [string]

OUTPUT “Is wheelchair access required?”

INPUT wheelUse [character]

**End getCustDetails**

**showLoggedCustomers**

OUTPUT “Current Customer Details”

FOR i = 0 TO I <= currentCust DO [positive whole number] [positive whole number]

OUTPUT “Customer Number” i + 1

OUTPUT “Name” customers[i] fullName

OUTPUT “Phone Number” customers[i] phoneNum

OUTPUT “Source” customers[i] source

OUTPUT “Destination” customers[i] destination

OUTPUT “No. of Passengers” customers[i] passengerNum

OUTPUT “Pick Up Time” customers[i] pickUpTime

OUTPUT “Wheelchair Access Needed” customers[i] wheelUse

END FOR

**End showLoggedCustomers**

* **Fare Class Methods**

**checkAvailability**

IF currentFare = 5 THEN [positive whole number]

OUTPUT “We are fully booked”

ELSE

CALL fares[currentFare] getJourneyLength [object array] [positive whole number]

SET vpass1, vpass2, dpass, found = false [true or false]

SET i = 0 [positive whole number]

OUTPUT “Capacity Needed” customers [currentCust] passengerNum [object array] [positive whole number]

DO

IF vehicles [i] free = true AND vehicles [i] capacity >= customers [currentCust] passengerNum THEN [object array]

SET vpass1 = true

ELSE

SET vpass1 = false

END IF

IF customers [currentCust] wheelUse = ‘Y’ AND vehicles [i] wheelAcc = false THEN

SET vpass2 = false

ELSE

SET vpass2 = true

END IF

IF vpass2 = false OR vpass2 = false THEN

SET i = i + 1

ELSE

OUTPUT “Suitable Vehicle Available”

END IF

LOOP WHILE NOT (vpass1 OR vpass2) AND i < 10

IF (vpass1 AND vpass2) = true

SET j = 0 [positive whole number]

DO

IF drivers [j] available = true AND vehicles [i] vehType = “Taxi” THEN

[object array]

SET dpass = true

ELSE IF drivers [j] available = true AND vehicles [i] vehType = “Bus” AND drivers [j] license = “D” THEN

SET dpass = true

ELSE IF drivers [j] available = true AND vehicles [i] vehType = “Minibus” AND (drivers [j] license = “D” OR drivers [j] license = “D1”) THEN

SET dpass = true

ELSE

SET dpass = false

END IF

IF dpass = false THEN

SET j = j + 1

ELSE

OUTPUT “Suitable Driver Available”

END IF

LOOP WHILE NOT dpass AND j < 5

IF dpass = false THEN

OUTPUT “No available drivers at this time”

END IF

ELSE

OUTPUT “No available vehicles at this time”

END IF

IF (vpass1 AND vpass2 AND dpass) = true THEN

SET drivers [currentDriv] available = false [positive whole number]

SET vehicles [i] free = false

SET currentVeh = i [positive whole number]

OUTPUT “Booking confirmed”

SET found = true

CALL fares [currentFare] getFareDetails

CALL fares [currentFare] addDetailsToFare

CALL fares [currentFare] showCurrentFares

SET currentFare = currentFare + 1

END IF

SET currentCust = currentCust + 1

END IF

**End checkAvailability**

**getFareDetails**

SET fares [currentFare] fareNum = currentFare + 1 [positive whole number]

SET fares [currentFare] returnTime = “pending” [string]

**End getFareDetails**

**addDetailsToFare**

SET fareNum = fN [positive whole number]

SET IDnum = id [string]

SET fullname = n [string]

SET regNum = rN [string]

SET vehType = vT [string]

SET source = so [string]

SET destination = dest [string]

SET passengerNum = pN [positive whole number]

SET wheelUse = wU [character]

SET jLength = jL [decimal number]

SET pickUpTime = pT [string]

SET returnTime = rT [string]

**End addDetailsToFare**

**showCurrentFares**

OUTPUT “Current Fare Details”

FOR i = 0 TO i <= currentFare DO [positive whole number] [positive whole number]

OUTPUT “Fare Number” fares[i] fareNum

OUTPUT “Driver ID” fares[i] IDnum

OUTPUT “Driver Name” fares[i] fullName

OUTPUT “Registration Number” fares[i] regNum

OUTPUT “Vehicle Type” fares[i] vehType

OUTPUT “Source” fares[i] source

OUTPUT “Destination” fares[i] destination

OUTPUT “Passenger Number” fares[i] passengerNum

OUTPUT “Wheelchair Access” fares[i] wheelUse

OUTPUT “Journey Length” fares[i] jLength

OUTPUT “Pick Up Time” fares[i] pickUpTime

OUTPUT “Return Time” fares[i] returnTime

END FOR

**End showCurrentFares**

**calcCost**

SET fareCost = coCharge + (pricePerKM X journL) [decimal number] x 3

OUTPUT “Total Cost of Fare” fareCost

**End calcCost**

* **Log Class Methods**

**markFarecomplete**

SET invalidNum = true ` [true or false]

DO

OUTPUT “Enter the number of the fare”

INPUT fNum [positive whole number]

IF fNum > currentFare THEN

OUTPUT “Invalid Fare Number. Please re-enter”

ELSE

SET invalidNum = false

END IF

LOOP WHILE invalidNum = true

OUTPUT “Enter the return time in the format hh:mm”

INPUT returnTime

SET fares [fNum-1] fareCost = fares [fNum-1] calcCost (fares [fNum-1] jLength)

[decimal number] [method]

CALL logs[currentLog] fillLogDetails [positive whole number]

CALL logs[currentLog] showLoggedFares

SET currentLog = currentLog + 1

FOR i = 0 TO I <= 5 DO [positive whole number]

IF drivers[i] IDnum = fares[fNum - 1] IDnum THEN

SET drivers[i] mileage = drivers[i] mileage + fares[fNum - 1] jLength

SET drivers[i]revGen = drivers[i] revGen + fares[fNum - 1] fareCost

SET drivers[i] available = true

END IF

END FOR

FOR i = 0 TO I <= 10 DO [positive whole number]

IF vehicles[i] regNum = fares[fNum - 1] regNum THEN

SET vehicles[i] vKMdriven = vehicles[i] vKMdriven + fares[fNum - 1] jLength

SET vehicles[i] vehRevGen = vehicles[i] vehRevGen + fares[fNum - 1] fareCost

SET vehicles[i] free = true

END IF

END FOR

FOR i = fNum TO I <= currentFare DO [positive whole number]

SET fares[i] = fares[i + 1]

SET currentFare = currentFare - 1

END FOR

**End markFarecomplete**

**fillLogDetails**

SET fareNum = fN [positive whole number]

SET IDnum = id [string]

SET fullname = n [string]

SET regNum = rN [string]

SET vehType = vT [string]

SET source = so [string]

SET destination = dest [string]

SET passengerNum = pN [positive whole number]

SET wheelUse = wU [character]

SET jLength = jL [decimal number]

SET pickUpTime = pT [string]

SET returnTime = rT [string]

SET fareCost = fC [decimal number]

**End fillLogDetails**

**showLoggedFares**

CALL fares [currentFare] showCurrentFares

OUTPUT “Logged Fare Details”

FOR i = 0 TO I <= currentLog DO [positive whole number] [positive whole number]

OUTPUT “Fare Number” logs[i] fareNum

OUTPUT “Driver ID” logs[i] IDnum

OUTPUT “Driver Name” logs[i] fullName

OUTPUT “Registration Number” logs[i] regNum

OUTPUT “Vehicle Type” logs[i] vehType

OUTPUT “Source” logs[i] source

OUTPUT “Destination” logs[i] destination

OUTPUT “Passenger Number” logs[i] passengerNum

OUTPUT “Wheelchair Access” logs[i] wheelUse

OUTPUT “Journey Length” logs[i] jLength

OUTPUT “Pick Up Time” logs[i] pickUpTime

OUTPUT “Return Time” logs[i] returnTime

OUTPUT “Fare Cost” logs[i] returnTime

END FOR

**End showLoggedFares**

* **Report Class Methods**

**outputTitle**

OUTPUT “End of Day Report”

**End outputTitle**

**outputVehicleDetails**

OUTPUT “Vehicle Details”

FOR i = 0 TO I <= 10 DO [positive whole number]

OUTPUT “Vehicle” vehicles[i] regnum [string]

OUTPUT “Total Kilometres Driven” vehicles[i] vKMdriven [positive whole number]

OUTPUT “Revenue Generated” vehicles[i] vehRevGen [decimal number]

END FOR

CALL rep outputDriverDetails [Report object]

**End outputVehicleDetails**

**outputDriverDetails**

OUTPUT “Driver Details”

FOR i = 0 TO I <= 10 DO [positive whole number]

OUTPUT “Driver” drivers[i] IDnum [string]

OUTPUT “Total Kilometres Driven” drivers[i] mileage [positive whole number]

OUTPUT “Revenue Generated” drivers[i] revGen [decimal number]

END FOR

**End outputDriverDetails**