

PSEUDOCODE – Task 2

```
DECLARE continueFlag : BOOLEAN
DECLARE discountFlag : BOOLEAN
DECLARE departureFlag : BOOLEAN
DECLARE returnFlag : BOOLEAN

DECLARE continueFlagStr : STRING
DECLARE departureJourney : STRING
DECLARE returnJourney : STRING

DECLARE numPassengers : INTEGER
DECLARE numPassengersTemp : INTEGER
DECLARE discount : INTEGER
DECLARE cost : INTEGER

continueFlag = TRUE

REPEAT

    OUTPUT ""
    OUTPUT ""
    OUTPUT "Enter the number of passengers travelling: "
    INPUT numPassengers
    OUTPUT ""

    discountFlag = True

    discount = 0

    numPassengersTemp = numPassengers

    REPEAT
        IF numPassengersTemp - 10 >= 0 THEN

            discount = discount + 1
            numPassengersTemp = numPassengersTemp - 10

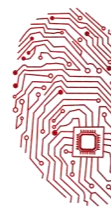
        ELSE

            discountFlag = False

        END IF
    UNTIL discountFlag = FALSE OR discount >= 8

    departureFlag = TRUE
```





PSEUDOCODE – Task 2

```
REPEAT
    OUTPUT ""

    departureJourney = INPUT "Choose the departure timings
(0900/1100/1300/1500): "

    IF departureJourney = "0900"
        THEN

            IF leaveTickets[1] - numPassengers < 0

                THEN

                    OUTPUT ""
                    OUTPUT "Not enough tickets left on this train."
                    OUTPUT ""

                ELSE

                    leaveTickets[1] = leaveTickets[1] - numPassengers
                    leavePassengers[1] = leavePassengers[1] +
numPassengers

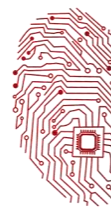
                    cost = 25 * (numPassengers - discount)
                    OUTPUT "Total tickets price: " & STR(cost)
                    leaveTotal[1] = leaveTotal[1] + cost
                    departureFlag = FALSE

                END IF

            ELSE IF departureJourney = "1100"

                THEN
```





PSEUDOCODE – Task 2

```
IF leaveTickets[2] - numPassengers < 0

    THEN

        OUTPUT ""

        OUTPUT "Not enough tickets left on this train."

        OUTPUT ""

    ELSE

        leaveTickets[2] = leaveTickets[2] - numPassengers
        leavePassengers[2] = leavePassengers[2] +
numPassengers

        cost = 25 * (numPassengers - discount)
        OUTPUT "Total tickets price: " & STR(cost)
        leaveTotal[2] = leaveTotal[2] + cost
        departureFlag = FALSE

    END IF

ELSE IF departureJourney = "1300"

    THEN

        IF leaveTickets[3] - numPassengers < 0

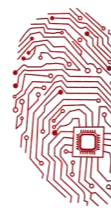
            THEN

                OUTPUT ""

                OUTPUT "Not enough tickets left on this train."

                OUTPUT ""
```





PSEUDOCODE – Task 2

ELSE

leaveTickets[3] = leaveTickets[3] - numPassengers

leavePassengers[3] = leavePassengers[3] +

numPassengers

cost = 25 * (numPassengers - discount)

OUTPUT "Total tickets price: " & STR(cost)

leaveTotal[3] = leaveTotal[3] + cost

departureFlag = FALSE

END IF

ELSE IF departureJourney = "1500"

THEN

IF leaveTickets[4] - numPassengers < 0

THEN

OUTPUT ""

OUTPUT "Not enough tickets left on this train."

OUTPUT ""

ELSE

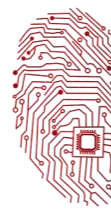
leaveTickets[4] = leaveTickets[4] - numPassengers

leavePassengers[4] = leavePassengers[4] +

numPassengers

cost = 25 * (numPassengers - discount)





PSEUDOCODE – Task 2

```
OUTPUT "Total tickets price: " & STR(cost)
```

```
leaveTotal[4] = leaveTotal[4] + cost
```

```
departureFlag = FALSE
```

```
END IF
```

```
ELSE
```

```
OUTPUT ""
```

```
OUTPUT "Invalid response. Please choose one 0900/1100/1300/1500."
```

```
OUTPUT ""
```

```
END IF
```

```
UNTIL departureFlag = FALSE
```

```
returnFlag = TRUE
```

```
REPEAT
```

```
OUTPUT ""
```

```
returnJourney = INPUT "Choose the departure timings (1000/1200/1400/1600):"
```

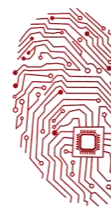
```
IF returnJourney = "1000"
```

```
THEN
```

```
IF returnTickets[1] - numPassengers < 0
```

```
THEN
```





PSEUDOCODE – Task 2

```
OUTPUT ""

OUTPUT "Not enough tickets left on this train."

OUTPUT ""

ELSE

    returnTickets[1] = returnTickets[1] - numPassengers
    returnPassengers[1] = returnPassengers[1] +
numPassengers

    cost = 25 * (numPassengers - discount)
    OUTPUT "Total tickets price: " & STR(cost)
    returnTotal[1] = returnTotal[1] + cost
    returnFlag = FALSE

END IF

ELSE IF returnJourney = "1200"

    THEN

        IF returnTickets[2] - numPassengers < 0

            THEN

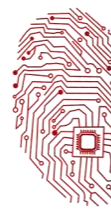
                OUTPUT ""
                OUTPUT "Not enough tickets left on this train."
                OUTPUT ""

            ELSE

                returnTickets[2] = returnTickets[2] - numPassengers
                returnPassengers[2] = returnPassengers[2] +
numPassengers

                cost = 25 * (numPassengers - discount)
```





PSEUDOCODE – Task 2

```
OUTPUT "Total tickets price: " & STR(cost)
```

```
returnTotal[2] = returnTotal[2] + cost
```

```
returnFlag = FALSE
```

```
END IF
```

```
ELSE IF returnJourney = "1400"
```

```
THEN
```

```
IF returnTickets[3] - numPassengers < 0
```

```
THEN
```

```
OUTPUT ""
```

```
OUTPUT "Not enough tickets left on this train."
```

```
OUTPUT ""
```

```
ELSE
```

```
returnTickets[3] = returnTickets[3] - numPassengers
```

```
returnPassengers[3] = returnPassengers[3] +
```

```
numPassengers
```

```
cost = 25 * (numPassengers - discount)
```

```
OUTPUT "Total tickets price: " & STR(cost)
```

```
returnTotal[3] = returnTotal[3] + cost
```

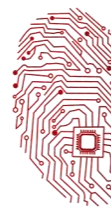
```
returnFlag = FALSE
```

```
END IF
```

```
ELSE IF returnJourney = "1600"
```

```
THEN
```





PSEUDOCODE – Task 2

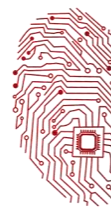
```
IF returnTickets[4] - numPassengers < 0
    THEN
        OUTPUT ""
        OUTPUT "Not enough tickets left on this train."
        OUTPUT ""
    ELSE
        returnTickets[4] = returnTickets[4] - numPassengers
        returnPassengers[4] = returnPassengers[4] +
numPassengers

        cost = 25 * (numPassengers - discount)
        OUTPUT "Total tickets price: " & STR(cost)
        returnTotal[4] = returnTotal[4] + cost
        returnFlag = FALSE
    END IF

ELSE
    OUTPUT ""
    OUTPUT "Invalid response. Please choose one 1000/1200/1400/1600."
    OUTPUT ""
END IF

UNTIL returnFlag = FALSE
```





PSEUDOCODE – Task 2

```
OUTPUT "Departure train - 09:00. Tickets left: " & STR(leaveTickets[1])

OUTPUT "Departure train - 11:00. Tickets left: " & STR(leaveTickets[2])

OUTPUT "Departure train - 13:00. Tickets left: " & STR(leaveTickets[3])

OUTPUT "Departure train - 15:00. Tickets left: " & STR(leaveTickets[4])

OUTPUT ""

OUTPUT "Return train - 10:00. Tickets left: " & STR(returnTickets[1])

OUTPUT "Return train - 12:00. Tickets left: " & STR(returnTickets[2])

OUTPUT "Return train - 14:00. Tickets left: " & STR(returnTickets[3])

OUTPUT "Return train - 16:00. Tickets left: " & STR(returnTickets[4])

OUTPUT ""

OUTPUT ""

OUTPUT ""

OUTPUT ""

continueFlagStr = INPUT "Are there more tickets to buy? (Y/N): "

IF continueFlagStr = "Y"

    THEN

        continueFlag = TRUE

ELSE IF continueFlagStr = "N"

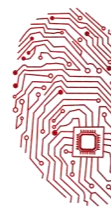
    THEN

        continueFlag = FALSE

ELSE

    OUTPUT "Enter a correct value."
```





PSEUDOCODE – Task 2

END IF

UNTIL continueFlag = FALSE

OUTPUT ""

OUTPUT ""

TASK 3

DECLARE totalPassengers : INTEGER

DECLARE totalMoney : INTEGER

DECLARE mostPassengers : INTEGER

DECLARE leaveMost : BOOLEAN

DECLARE returnMost : BOOLEAN

DECLARE index : INTEGER

OUTPUT "Number of passengers on the 0900 Departure train: " & STR(leavePassengers[1])

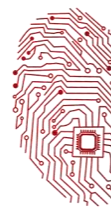
OUTPUT "Total money taken for the 0900 Departure train: " & STR(leaveTotal[1])

OUTPUT ""

OUTPUT "Number of passengers on the 1100 Departure train: " & STR(leavePassengers[2])

OUTPUT "Total money taken for the 0900 Departure train: " & STR(leaveTotal[2])





PSEUDOCODE – Task 2

OUTPUT ""

OUTPUT "Number of passengers on the 1100 Departure train: " & STR(leavePassengers[3])

OUTPUT "Total money taken for the 0900 Departure train: " & STR(leaveTotal[3])

OUTPUT ""

OUTPUT "Number of passengers on the 1100 Departure train: " & STR(leavePassengers[4])

OUTPUT "Total money taken for the 0900 Departure train: " & STR(leaveTotal[4])

OUTPUT ""

OUTPUT "Number of passengers on the 1000 Return train: " & STR(returnPassengers[1])

OUTPUT "Total money taken for the 1000 Return train: " & STR(returnTotal[1])

OUTPUT ""

OUTPUT "Number of passengers on the 1200 Return train: " & STR(returnPassengers[2])

OUTPUT "Total money taken for the 1200 Return train: " & STR(returnTotal[2])

OUTPUT ""

OUTPUT "Number of passengers on the 1400 Return train: " & STR(returnPassengers[3])

OUTPUT "Total money taken for the 1400 Return train: " & STR(returnTotal[3])

OUTPUT ""

OUTPUT "Number of passengers on the 1600 Return train: " & STR(returnPassengers[4])

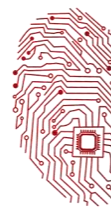
OUTPUT "Total money taken for the 1600 Return train: " & STR(returnTotal[4])

OUTPUT ""

totalPassengers = 0

totalMoney = 0





PSEUDOCODE – Task 2

```
FOR i = 1 TO 4

    totalPassengers = totalPassengers + leavePassengers[i]

    totalPassengers = totalPassengers + returnPassengers[i]

    totalMoney = totalMoney + leaveTotal[i]

    totalMoney = totalMoney + returnTotal[i]

NEXT

mostPassengers = -1000

leaveMost = FALSE

returnMost = FALSE

index = 0

FOR i = 1 TO 4

    IF leavePassengers[i] > mostPassengers

        THEN

            mostPassengers = leavePassengers[i]

            index = i

            leaveMost = TRUE

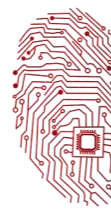
            returnMost = FALSE

    END IF

    IF returnPassengers[i] > mostPassengers

        THEN
```





PSEUDOCODE – Task 2

```
        mostPassengers = returnPassengers[i]

        index = i

        leaveMost = TRUE

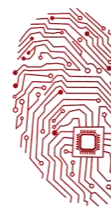
        returnMost = FALSE

    END IF

NEXT

IF index = 1 AND leaveMost
    THEN
        OUTPUT "The 0900 Departure train had the most passengers."
ELSE IF index = 1 AND returnMost
    THEN
        OUTPUT "The 1000 Return train had the most passengers."
ELSE IF index = 2 AND leaveMost
    THEN
        OUTPUT "The 1100 Departure train had the most passengers."
ELSE IF index = 2 AND returnMost
    THEN
        OUTPUT "The 1200 Return train had the most passengers."
ELSE IF index = 3 AND leaveMost
    THEN
        OUTPUT "The 1300 Departure train had the most passengers."
ELSE IF index = 3 AND returnMost
```





PSEUDOCODE – Task 2

THEN

OUTPUT "1400 Return train had the most passengers."

ELSE IF index = 4 AND leaveMost

THEN

OUTPUT "1500 Departure train had the most passengers."

ELSE IF index = 4 and returnMost

THEN

OUTPUT "The 1600 Return train had the most passengers."

END IF

OUTPUT "Total money taken for the day: " & STR(totalMoney)

OUTPUT "Total passengers travelling for the day: " & STR(totalPassengers)

