

EXPLANATION ON THE USAGE OF EACH VARIABLE & ARRAY IN THE SOLUTION

Task 1: Usage of Variables & Arrays

1. UpTime : ARRAY[1:4]
Datatype: STRING
Usage: Used to store each train journey's departure (leaving the foot of the mountain) hour.
2. UpSeats : ARRAY[1:4]
Datatype: INTEGER
Usage: Used to store the total number of tickets available for each train journey going up the mountain (leaving the foot of the mountain).
3. UpPassengers : ARRAY[1:4]
Datatype: INTEGER
Usage: Used to store the total number of passengers travelled on each train journey going up the mountain (leaving the foot of the mountain).
4. UpMoneyTotal : ARRAY[1:4]
Datatype: REAL
Usage: Used to store the total money taken for each train journey going up (leaving the foot of the mountain).
5. DownTime : ARRAY[1:4]
Datatype: STRING
Usage: Used to store each train journey's return hour (going down to the foot of mountain hour).
6. DownSeats : ARRAY[1:4]
Datatype: INTEGER
Usage: Used to store the total number of tickets available for each train journey going down (returning to the foot of mountain).
7. DownPassengers : ARRAY[1:4]
Datatype: INTEGER
Usage: Used to store the total number of passengers travelled on each train journey going down (returning to the foot of mountain).
8. DownMoneyTotal : ARRAY[1:4]
Datatype: REAL
Usage: Used to store the total money taken for each train journey going down (returning to the foot of mountain).
9. index Datatype: INTEGER
Usage: Used for FOR...TO...NEXT loop.

Task 2: Usage of Variables

1. FreeTickets $\leftarrow 0$
Datatype: INTEGER
Usage: Used to store the calculated number of free tickets awarded/given to the user for the trip.
2. OneWayTicket $\leftarrow 25.0$
Datatype: CONSTANT REAL
Usage: Used to store the fixed price of one ticket. This variable is a constant.
3. OneWayCost $\leftarrow 0.0$
Datatype: REAL
Usage: Used to store the calculated one-way journey price for the trip.
4. choice
Datatype: BOOLEAN
Usage: Used to store the user input when asked if wants to buy ticket(s) or not.
5. NumOfPassengers
Datatype: INTEGER
Usage: To store the user input when asked for the number of passengers going on the trip.
6. UpTrip
Datatype: INTEGER
Usage: To store user input when asked for the Journey number corresponding to chosen departure hour (leaving the foot of the mountain hour).
7. DownTrip
Datatype: INTEGER
Usage: To store user input when asked for the Journey number corresponding to chosen return hour.
8. index
Datatype: INTEGER
Usage: Used for FOR...TO...NEXT loop

Task 3: Usage of Variables

1. TotalAmount \leftarrow 0.0
Datatype: REAL
Usage: Used to store the calculated total amount of money taken in a single day.
2. TotalPassengers \leftarrow 0
Datatype: INTEGER
Usage: Used to store the total number of passengers travelled in a single day.
3. MostPassengers \leftarrow 0
Datatype: INTEGER
Usage: Used to store the greatest number of passengers travelled on a journey to help find the Journey hour with the greatest number of passengers.
4. MaxTrain
Datatype: STRING
Usage: Used to store the Journey hour with the greatest number of passengers.
5. index
Datatype: INTEGER
Usage: Used for FOR...TO...NEXT loop

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Link to the **MJ 2021 PRM - Expected Questions - Variant 22.pdf** file:

<https://github.com/zakonweb/Pre-release-Materials/blob/bb6aefaca06c9abca5e0da50ae8fdd1f2c813b7a/June-2021/OL/Variant%2022/Expected%20Questions/MJ%202021%20PRM%20-%20Expected%20Questions%20-%20Variant%2022.pdf>

Link to the GitHub Paper 22 Pre-release solution Repository:
<https://github.com/Dunroxiz/Pre-release-Material-2021-P22-MJ-CIE>