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**Objective:** Understand Constructors in Java

**Problem Description:** The new metro rail service is planning to automate the generation of

tickets .This would be done when the customer presses a specific key on an automated

machine available in the railway stations. The tickets are generated for a preset start point and preset end point of travel location. The class diagram is given in Figure 3.

**package - )**

***Figure 3: Class diagram for Ticket class***

**Ticket**

-startPoint:int

-endPoint:int

-ticketAmount:int

+Ticket()

+Ticket(int,int)

+getStartPoint():int

+getEndPoint():int

+getTicketAmount():int

+validateTravelPoints():boolean

+calculateTicketAmt():void

**Implementation Details:**

**validateTravelPoints()** is written to satisfy the following criteria:-

oendPoint and startPoint must be greater than 0

oendPoint must always be greater than startPoint

**calculateTicketAmt ()**

oThe ticket amount is calculated by the following formula:

o**(endpoint – startPoint) \* 20**

oThe value is stored in the variable **ticketAmount**

**The preset endPoint and startPoint are 18 and 2 respectively.**

**Create a starter class called Demo in Demo.java file. In the main method create**

**the objects as given below:**

oTicket newTicket=new Ticket();

oTicket newTicket=new Ticket(18,1);

oTicket newTicket=new Ticket(2,18);

oIf the travel points are valid, calculate the ticket amount by invoking

the appropriate methods.

oAt the end of each calculation, display the amount of money to be paid

and observe the changes.