

Cinema

At the cinema, all spectators must have ticket. A ticket contains Barcode (13 digits), Ticket Number, ROOM number, SEAT number, Issue date, Expire date, Time to watch the movie, price and class of the ticket. There are 2 classes of ticket: VIP class and CLASSIC class.

There are many types of tickets:

- Child Ticket: for children bellow or equals to 12 years old
- Teen Ticket: for teenager bellow or equal the age of 26 years old
- Student Ticket: for student of any age (require validate the student ID card)
- Adult Ticket: for adult which the age is above 26 years old

Your task is to build a ticket machine that can:

1. Produce tickets:
 - a. the ticket seller will input data as :
 - i. Room number: Ex: Salle 06, Room of the dead
 - ii. i Customer's age
 - iii. Customer's student ID (if he/she is student)
 - b. Ticket Number must be unique every time a ticket is printed. Ex: TF003
 - c. Barcode must be unique and not in order every time a ticket is printed. Ex: 8029957485888
 - d. DO NOT print ticket if room is full (each room can accept only 30 VIP class spectators, and only 300 CLASSIC class spectators)
 - e. The price is vary depends on type and class of ticket (you can decide any price you like)

2. Validate ticket:

- a. Customer input the barcode (in real situation, the barcode is read by barcode reader tool)
- b. If barcode is exists in the tickets list, display "OK"
- c. Otherwise, display "Invalid barcode"
- d. If the time of watching movie is passed, display "Invalid Ticket"

3. Display all tickets

4. Search tickets by class

5. Sort tickets by issue date