Task 2.5

1. You have to evaluate the test which consist of 25 multiple-choice questions for 3 students. Consider four array as give below:

   Array1 storing correct answers of 25 questions as shown below:

2	4	1	3	5	4	3	2	1	3	4	5	4	2	3	1	5	2	3	1	4	2	3	1	5

   Array2 storing answers given by 3 students as given below:

Student 1	2	3	4	3	5	1	3	2	1	3	4	5	2	1	3	2	3	1	4	3	4	1	3	1	5
Student 2	2	4	1	4	5	2	3	2	4	3	5	4	4	2	1	3	5	2	3	4	1	2	3	1	3
Student 3	3	4	1	3	5	4	3	2	1	3	5	4	4	3	2	1	5	3	1	4	4	2	3	1	5

   Array3 storing marks for each question:

1	1	2	1	2	1	3	1	2	1	2	4	1	3	2	2	4	1	2	3	2	1	1	2	3

   You have to evaluate every answers of each student stored in Array2 by comparing with answers stored in Array 1 and then calculate the total score by fetching from array3. Take an example for student1 who has selected 2 option as correct answer for first question, now his answer is matching with the answer stored in first index in array1 (E.g. 2), then he will score 1 marks for this correct answer because array3 consist 1 at 0 index which is positive marks for first question.. Similarly you have to check for all answers for all students and have to find the total score.
   Hint: Use 1- Dimensional Array for storing the value of Arra1 and Array3.
   Use 2-Dimensional Array for storing the values of Array2.

2. A survey to know the popularity of four cars (Ambassador, Fiat, Duster and Maruti) was conducted in four cities (Bombay, Calcutta, Delhi and Madras). Below are the survey results of 36 persons who gave their city codes and their car codes used by them. City Codes and Car Codes are stored in different two-dimensional arrays.

M	C	B	D	M	B
C	D	M	B	D	C
C	C	C	M	M	C
D	D	M	M	B	B
D	C	B	M	C	B
D	M	C	D	M	C

1	2	3	1	2	4
1	3	4	2	1	3
4	4	1	1	3	3
1	1	2	2	4	4
1	2	3	1	2	1
3	4	1	2	3	4

Codes represent the following information:

M- Madras
D- Delhi
C- Calcutta
B- Bombay

1- Ambassador
2- Fiat
3- Duster
4- Maruti

Write a program to calculate the below results:

A. Count total number of cars for all cities , int the below pattern :
   Madras – 14 Ambassadors, 12 Fiat, 13 Duster and 8 Maruti.
   Similarly for all other cities.
B. Display the name of that car which is occurring maximum.
C. Display the name of that car which is occurring minimum.
D. From which city, maximum persons have given the survey.
E. Accept the car name from user and display that city which is having more such cars.
F. Count total number of cars and display as Ambassador : 10, Fiat : 12, Duster: 8 and Maruti : 6

3. Accept values in two 1-Dimensional array of size 5 and perform the below tasks:
   A. Sort both arrays in ascending order.

B. Merge both arrays in ascending order.
C. Display the merged array in descending order.

4. Every book published by international publishers should carry an International Standard Book Number (ISBN). It is a 10 alpha-numeric characters divided into 4 parts as shown below:

   C-07-0411AA-8

   Write a program to verify whether user has given correct ISBN no or not by performing below comparisons:

   A. First part should be single character as in above (E.G. C which is character).
   B. Second part should be of 2 digits. (E.g. 07).
   C. Third part should be of 6 length and ends with two character (E.G. 0411AA).
   D. Last part should be a single digit. (E.G. 8).

5. Accept date of birth and today's date from user in below format and then perform the below operations:

   Date format: DD-MM-YYYY (for both DOB and Current Date).

   A. Verify if user has given correct DOB and Current date by checking :

      i. Dates are properly separated by "-".
      ii. Dates are in range of 1-31 for non-leap year and 1-28 for leap year.
      iii. Month in range of 1-12.
      iv. Year is of 4 digits.

Note: User cannot give 29 Feb 2012, as 2012 is leap year, hence you have to take care of leap year also.

B. Calculate the total number of days user has spent.
C. Calculate how old is user in years?