

Extra Qns -

- 1) Develop a Java program to create a class `Player` with variables `id`, `name`, `scores`, `no_matches_played` with default access specifier. Include the following :

a. Constructors

b. appropriate methods that calculates the average scores of the player & displays the same.

Create 2 player objects and display the player details who has the greater average score

```
import java.util.Scanner;
```

```
class Player  
{
```

```
    int id;
```

```
    int no_matches_played;
```

```
    int scores [];
```

```
    String name;
```

```
    Player ()
```

```
    {
```

```
        name = null;
```

```
        id = 0;
```

```
        no_matches_played = 0;
```

```
    }
```

```
Player( String na, int i, int n, int s[])
```

```
{
```

```
    name = na;
```

```
    id = i;
```

```
    no_matches_played = n;
```

```
    scores = s;
```

```
double avg()
```

```
{
```

```
    int scoresum = 0
```

```
    for (int i = 0; i < no_of_matches; i++)
```

```
        scoresum + = scores[i];
```

```
    double avg_score = sum / no_of_matches_played;
```

```
    return avg_score;
```

```
}
```

```
void display()
```

```
{
```

```
    System.out.println("Name: " + name);
```

```
    System.out.println("ID: " + id);
```

```
    System.out.println("No. of matches played: " + no_matches_played);
```

```
    System.out.print("Scores: ");
```

```
    for (int i = 0; i < no_matches_played; i++)
```



```
System.out.println(scores[i] + " ");  
}  
}
```

```
class Main {
```

```
public static void main (String[] args)  
{
```

```
Scanner in = new Scanner (System.in);
```

```
double avg1 = 0, avg2 = 0;
```

```
System.out.println ("Enter player name-");
```

```
String na = in.next();
```

```
System.out.println ("Enter ID-");
```

```
int id = in.nextInt();
```

```
System.out.println ("Enter no. of matches played-");
```

```
int n = in.nextInt();
```

```
System.out.println ("Enter scores-");
```

```
int s[] = new int [n];
```

```
for (int i = 0; i < n; i++)
```

```
{
```

```
    s[i] = in.nextInt();
```

```
}
```

```
Player p1 = new Player (na, id, n, s);
```

```
avg1 = p1.avg();
```

```
System.out.println ("Enter player name-");
```



```
na = in.nextInt();
System.out.println("Enter ID-");
id = in.nextInt();
System.out.println("Enter no. of matches played-");
n = in.nextInt();
int si[] = new int[n];
System.out.println("Enter scores-");
for (int i=0; i<no_matches_played; i++)
{
    si[i] = in.nextInt();
}
Player p2 = new Player (na, id, n, si);
avg2 = p2.avg();

if (avg1 > avg2)
    p1.display();
else
    p2.display();
}
}
```


2) Develop a JP to create a class Book with members - bookid, booktitle, no_of_pages, year_of_pub, author, publisher and price. Create 3 objects of book class. Include methods in BOOK class that do the following :

- a. Accepting the book details
- b. displaying the book details
- c. Accept the author name and display the book details
- d. Display the book title of the most expensive book
- e. Display the count of the books published in year 2020
- f. Display the book details of the book with the least no. of pages.

```
import java.util.Scanner;
```

```
class Book
```

```
{
```

```
    int bookid;
```

```
    String booktitle;
```

```
    int no_of_pages;
```

```
    int year_of_pub;
```

```
    String author;
```

```
    String publisher;
```

```
    double price;
```

```
    void getDetails ()
```

```
{
```



```
Scanner in = new Scanner (System.in);
System.out.println ("enter book id:");
bookid = in.nextInt();
System.out.println ("enter book title:");
booktitle = in.next();
System.out.println ("enter no of pages:");
no-of-pages = in.nextInt();
System.out.println ("enter year of publish:");
year-of-pub = in.nextInt();
System.out.println ("enter author:");
author = in.next();
System.out.println ("enter publisher:");
publisher = in.nextInt();
System.out.println ("enter price:");
price = in.nextDouble();
}
```

```
void printDetails ()
{
```

```
4 System.out.println ("book id = " + bookid);
System.out.println ("book title = " + booktitle);
System.out.println ("no. of pages = " + no-of-pages);
System.out.println ("year of publish = " + year-of-pub);
System.out.println ("author = " + author);
```



```
System.out.println("publisher = " + publisher);  
System.out.println("price = " + price);  
}
```

```
void authorname (String a)  
{
```

```
    if (a == author)  
    {
```

```
        printDetails();  
    }
```

```
}
```

```
String me()  
{
```

```
    System.out.print("the title of the most expensive book is - "  
        + booktitle);
```

```
    return booktitle;
```

```
}
```

```
int- pages()  
{
```

```
    return no-of-pages;
```

```
}
```



```
class Main
```

```
{
```

```
    public static void main (String args[]) {
```

```
        Scanner in = new Scanner (System.in);
```

```
        System.out.println ("Enter 1st book details :");
```

```
        Book b1 = new Book();
```

```
        b1.getDetails();
```

```
        System.out.println ("Enter 2nd book details :");
```

```
        Book b2 = new Book();
```

```
        b2.getDetails();
```

```
        System.out.println ("Enter 3rd book details :");
```

```
        Book b3 = new Book();
```

```
        b3.getDetails();
```

```
        System.out.println ();
```

```
        System.out.println ("enter the name of author");
```

```
        String a = in.next();
```

```
        b1.authorname(a);
```

```
        b2.authorname(a);
```

```
        b3.authorname(a);
```

```
        System.out.println ();
```

```
        if (b1.price > b2.price)
```

```
{
```

```
            if (b1.price > b3.price)
```

```
{
```



```
        b1.me ();  
    }  
    else if (b1.price < b3.price)  
    {  
        b3.me ();  
    }  
}  
else if (b2.price > b1.price)  
{  
    if (b2.price > b3.price)  
    {  
        b2.me ();  
    }  
    else if (b3.price > b2.price)  
    {  
        b3.me ();  
    }  
}
```

```
System.out.println();
```

```
int count = 0;
```

```
if (b1.year-of-pub == 2020)  
    count ++;
```

```
if (b2.year-of-pub == 2020)
```



```
count++;  
if (b3.year_of_pub == 2020)  
    count++;  
System.out.println("no. of books published in 2020 is " + count);  
System.out.println();  
System.out.println("book details with least no. of pages :");  
if (b1.pages() < b2.pages())  
{  
    if (b1.pages() < b3.pages())  
    {  
        b1.printDetails();  
    }  
    else b3.printDetails();  
}  
else  
{  
    if (b2.pages() < b3.pages())  
        b2.printDetails();  
    else  
        b3.printDetails();  
}  
}
```