Practice - 4

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1) Create Player Class

```
# import java.util.scanner;
class Player {
    String id;
    String name;
    int[] runs;
    int no_matches_played;

    Player() { }

    Player( String id1, String name1, int[] runs1
                                    int n) {

        id   = id1;
        name = name1;
        runs = runs1;
        no_match_played = n;

    }

    Void getDetails() {
        Scanner sc = new Scanner( System.in);
        System.out.println("Enter player details
                    whom you want to compare
                    with Mithali Raj :");

        System.out.println("Enter id:");
        id= sc.next();
        System.out.println("Enter Name :");
        name = sc.next();
        System.out.println("Enter no. of matches
                                    played:");
```

```
        no_matches_played = sc.nextInt();
        runs = new int [no_matches_played];
        for(int i = 0; i < no_matches_played; i++){
            System.out.println("Enter Runs Scored
                in match " + (i+1) + ":");
            runs[i] = sc.nextInt();
        }
    }
    void printDetails(){
        System.out.println("\t** The player details
                are **");

        System.out.println("Id: " + id + "\n name: " +
            name + "\n number of match
            played: " + no_matchesplayed);
        for(int i = 0; i < no_matches_played; i++){
            System.out.println("Runs scored in match"
                + (i+1) + ": " + runs[i]);
    }
}
double avg(){
    int scoreSum = 0;
    for(int i = 0; i < no_matches_played; i++){
        scoreSum += runs[i];
    }
    return (scoreSum/(no_matches_played + 0.0));
}
}
class match{
    public static void main(String[] args){
    int[] run = {78, 56, 68};
```

```
double p1avg, p2avg;
Player p1 = new player();
player p2 = new player("03", "Mithali Raj",
                       runs, 3);

p1.getDetails();
p1avg = p1.avg();
p2avg = p2.avg();
p1.printDetails();
p2.printDetails();
if (p1avg > p2avg){
        System.out.println("Player 1 has
            greatest average i.e," +p2avg+
            "\nPlayer 1 average is:" +
            "\nPlayer 2 average is:" +p2avg);

}
else if (p2avg > p1avg){
    System.out.println("Player 2 has the
            greatest average i.e," +
            p2avg + "\nPlayer 1 average
            is:" + p1avg);

}
else {
    System.out.println("Both player 1
        & 2 have equal average." +
        "\nPlayer 1 average is:"
        + p1avg + "\nplayer 2 average
        is" + p2avg);

    }

}

}
```

Practice - 4

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2) Book Shelf

```
#import java.util.Scanner;
class Book
{
    private int id;
    private string title;
    private int nop;
    private int year;
    private string auth;
    private string pub;
    private double p;
    void getdetails()
    {
    Scanner s = new Scanner(System.in);
    System.out.println("Enter ID of Book");
    id = s.nextInt();
    System.out.println("Enter the title of Book");
    title = s.next();
    System.out.println("Enter no. of pages of Book");
    nop = s.nextInt();
    System.out.println("Enter year of Publication");
    year = s.nextInt();
    System.out.print("Enter Author of Book");
    auth = s.next();
    System.out.println("Enter Publisher of the
    pub = s.next();                Book");
```

```
        System.out.println("Enter price of Book");
        p = s.nextDouble();
    }
    void ~~print details~~ printdetails()
    {
        System.out.println("ID of Book : "+id);
        System.out.println("Title of Book : "+title);
        System.out.println("Number of pages in Book : "+nop);
        System.out.println("Year of Publication of Book : "
                                                    +year);
        System.out.println("Author of Book : "+auth);
        System.out.println("Publisher of Book:"+pub);
        System.out.println("Price of Book : "+p);
    }
    double price()
    {
        return p;
    }
    void displaybooktitle()
    {
        System.out.println(title);
    }
    int year()
    {
        return year;
    }
    int pages()
    {
        return nop;
    }
    String author()
    {
```

```
        return auth;
    }
}
class bookmain
{
    public static void main (String args[])
    {
        int c = 0;
        Book b1 = new Book();
        Book b2 = new Book();
        Book b3 = new Book();
        b1.getdetails();
        b2.getdetails();
        b3.getdetails();
        System.out.println("*** Details of the Book1**");
        b1.printdetails();
        System.out.println("** Details of the Book2**");
        b2.printdetails();
        System.out.println("** Details of the Book3**");
        b3.printdetails();
        if (b1.price() >= b2.price() &&
            b1.price() >= b3.price())
        {
        System.out.println("In The Most Explain
                            Expensive Book is with
                            title :") b1.displaybooktitle
        b1.displaybooktitle();
        }
        else if (b2.price() >= b1.price()
                 && b2.price() >= b3.price())
```

```
{
System.out.println("The Most Expensive Book is
                    with title : ");

b2.displaybooktitle();
}
else
{
System.out.println("The most expensive Book
                    is with title : ");

b3.displaybooktitle();
}
if (b1.year()== 2020)
c++;
if (b2.year() == 2020)
c++;
if (b3.year() == 2020)
c++;
System.out.println("The no. of books published
                    in year 2020 = " +c);

if (b1.pages() <= b2.price() && b1.price()<=
                    b3.price())
{
System.out.println("The Book with least no.
                    of pages is Book 1");

b1.printdetails();
}
else if (b2.pages()<=b1.pages() && ~~b3~~p
                    b2.pages() <= b3.pages())
{
System.out.println("The Book with least
                    no. of pages is Book 2");
b2.printdetails();
```

```
}
else
{
    System.out.println("The Book with least
                        no. of pages is Book 3");

    b3.printdetails();
}
System.out.println("Enter the Author name
                    whose Book details you want");

Scanner s1 = new Scanner(System.in);
String auth1 = s1.next();
if(auth1.compareToIgnoreCase(b1.author())
                                ==0)
b1.printdetails();
else if(auth1.compareToIgnoreCase(b2.author
                    (b2.author())==0)

b2.printdetails();

else if(auth1.compareToIgnoreCase(b3.author
                                ()==0)

b3.printdetails();

else
    System.out.println("The Given author's
                        Book is not found");
}
}
```