Week 4 extra programs :-

1)

```
import java.util.Scanner;
class player
{
    String name;
    private String id;
    private double scores[], avg;
    private int no_matches_played;

    Scanner ss= new Scanner(System.in);
    player()
    {
        name = "Mahendra Singh Dhoni";
        id="123abc456";
        scores = new double[]{23,45,43,14};
        no_matches_played = 4;
    }
    player (String nam, String ID, double score[], int nmp)
    {
        name = nam;
        id = ID;
        score = score;
        no_matches_played = nmp;
    }
    void getDetails()
    {
        System.out.println("\n Enter the player Details: ");
        System.out.println("\n Name: ");
        name = ss.next();
        System.out.println("ID: ");
        id = ss.next();
        System.out.println("Number of matches played: ");
        no_matches_played = ss.nextInt();
```

```
        scores = new double [no_matches_played];
        System.out.println ("Enter the scores of the matches played: ");
        for (int i=0; i < no_matches_played ; i++)
        {
            System.out.println("Enter the scores of match "+(i+1)
                                    + " :");
            scores[i] = ss.nextInt();
        }
    }
    void printDetails()
    {
        System.out.println("\n The player details are: ");
        System.out.println("\n Name: "+name);
        System.out.println("\n ID: "+id);
        for(int i=0;i<no_matches_played ;i++)
        {   System.out.println("The player scored "+scores[i]+" in match "+
                                (i+1));
        }
    }
    void avg_score()
    {
        double sum=0;
        for (int i=0 ;i<no_matches_played ; i++)
        {       sum+=scores[i];
        avg = sum/no_matches_played;
        System.out.println("The average score is :" +avg);
    }
    double getavg()
    {
        return avg;
    }
```

```
class Player_Details {

    public static void main (String args[])
    {
        player P1 = new players();
        P1.printDetails();
        P1.getDetails();
        P1.printDetails();
        double runs[] = {56.0, 78.0, 97.0, 23.0, 41.0, 45.0};
        player P2 = new Player("virat Kohli", "123ABC456", runs, 6);
        P2.printDetails();
        P2.avg_score();
        if (P1.getavg()> P2.getavg())
            System.out.println("The player with highest average is:"
                                + P1.name);
        else
            System.out.println("The player with highest average is:"
                                + P2.name);
    }
}
```

2) ~~book~~ import java.util.Scanner;

```
Class Book
{
    String bookid, booktitle, author, publishes;
    double price;
    int no_of_pages, year_of_pub;
    Scanner ss = new Scanner (System.in);

    BOOK()
    {
        bookid = "12345";
        booktitle = "Harry potter";
        no_of_pages = 500;
        year_of_pub = 1997;
        author = "J K Rowling";
        publisher = "Bloomsbury";
        price = 1200;
    }
    Book (String bid, String btitle, int nop, int yop, String auth,
          String pub, double pri)
    {
        bookid = bid;
        booktitle = btittle;
        no_of_pages = nop;
        year_of_pub = yop;
        author = auth;
        publisher = pub;
        price = pri;
    }
```

```
void getDetails()
{
    System.out.println("\n Enter the Book Details: ");
    System.out.println("\n Title: ");
    bookTitle = ss.next();
    System.out.println("\n ID: ");
    bookid = ss.next();
    System.out.println("Number of pages: ");
    no_of_pages = ss.nextInt();
    System.out.println("Year of publish: ");
    year_of_pub = ss.nextInt();
    System.out.println("Author: ");
    author = ss.next();
    System.out.println("Publishers: ");
    publishers = ss.next();
}
void printDetails()
{
    System.out.println("\n The player Details are: ");
    System.out.println("\n Book Title: "+bookTitle);
    System.out.println("\n ID : "+bookid);
    System.out.println("\n Number of pages: "+no_of_pages);
    System.out.println("\n Year of publish : "+noyear_of_pub);
    System.out.println("\n Author: "+author);
    System.out.println("\n Publisher: "+publishers);
    System.out.println("\n Price : "+price);
}
String getAuthor()
{
    return this.author;
}
```

```
class Library{
  public static void main(String args[])
{
   Scanner ss = new Scanner(System.in);
   Book b1 = new Book();
   Book b2 = new Book("67890","Outbreak", 450, 2020, "Robin Cook",
                      "McGraw Hill", 1500);
   b1.printDetails();
   b2.printDetails();
   System.out.println("Enter the author name : ");
   String auth = ss.next();
  if ( b1.getAuthor() == auth)
  {
    System.out.println("The book is : ");
    b1.printDetails();
  }
  else if (b2.getAuthor()==auth)
{
    System.out.println("The book is : ");
    b2.printDetails();
  }
  else
    System.out.println("There is no book name with the author"
                       +auth);
  if (b1.price > b2.price)
     System.out.println("The most expensive book is : "+b1.booktitle);
else
   System.out.println("The most expensive book is :"+b2.booktitle);

if (b1.no_of_pages < b2.no_of_pages)
  System.out.println("The book with the least number of pages:"
                     + b1.booktitle);
else
   System.out.println("The book with the least no. of pages is :"
                      + b2.booktitle);
}
}
```