

Day 1 SOLUTIONS

Solution 1:

```
package com.hsbc.pack;

public class Welcome {

    public static void main(String args[]) {
        System.out.println("Welcome to the world of Java");    // printing output
    }
}
```

Solution 2:

```
package com.hsbc.pack;

public class CommandLine {

    public static void main(String args[]) {
        for(int i = 0; i<args.length; i++)    // traversing input from command line through loop
            System.out.println(" "+ args[i]);
    }
}
```

Solution 3:

```
// printing value of a variable (this a a documentation comment)

package com.hsbc.pack;

public class CommentDemo{    // making of the class CommentDemo(this is a single line comment)

    public static void main(String args[]) {
        public int x=5;    /* decalre and // x=5 here (Nested Comment inside MultiLine)
                           print variable (Multi-Line comment)*/
        System.out.println("x="+x);
    }
}
```

Solution 4:

```
package com.hsbc.pack;

public class DataTypes {

    public static void main(String args[]) {
        public int myNum = 50;    // Integer (whole number)
        public float myFloatNum = 555.99f;    // Floating point number
        public long myLongNum=15000000L;    // Long DataType
        public double myDoubleNum=12.88d;    //Double DataType

        System.out.println("Integer variable value is="+myNum);
        System.out.println("Float variable value is="+myFloatNum);
        System.out.println("Long variable value is="+myLongNum);
        System.out.println("Double variable value is="+myDoubleNum);
    }
}
```

Solution 5:

```
package com.hsbc.pack;

public class CommandLine {

    public static void main(String args[]) {
        public int first=args[0];           // first argument stored in first variable
        public int second=args[1];         // second argument stored in second variable
        first=first+second;
        second=first-second;
        first=first-second;
        System.out.println("Swapped numbers are=");
        System.out.println(" "+ first + " " + second);
    }
}
```

Solution 6:

```
package com.hsbc.pack;

public class LeapYear {

    public static void main(String args[]) {
        public int year=args[0];
        public boolean result;
        result=(year%4==0 && year%100!=0) ? (year%400 ==0 ) ?true : false; //logic
        if(result==true){
            System.out.println("Leap year");
        }
        else {
            System.out.println("Not leap year");
        }
    }
}
```

Solution 7:

```
package com.hsbc.pack;

public class Largest{

    public static void main(String[] args) {

        int num1 = 10, num2 = 20, num3 = 7;           // random inputs to test logic
        if( num1 >= num2 && num1 >= num3)             // testing first number is greatest or not
            System.out.println(num1+" is the largest Number");

        else if (num2 >= num1 && num2 >= num3)         // testing second number is greatest or not
            System.out.println(num2+" is the largest Number");

        else
            System.out.println(num3+" is the largest Number");
    }
}
```

Solution 8:

```
package com.hsbc.pack;

public class Palindrome {

    public static void main(String[] args) {

        int num = 191, reversedNumber = 0, remainder, originalNumber;
        originalNumber = num;    // reversed integer is stored in variable
        while( num != 0 )
        {
            remainder = num % 10;
            reversedNumber = reversedNumber* 10 + remainder;
            num=num/ 10;
        }

        if (originalInteger == reversedNumber)    /* palindrome if originalInteger and
                                                    reversedInteger are equal */
            System.out.println(originalNumber + " is a palindrome.");
        else
            System.out.println(originalNumber + " is not a palindrome.");
    }
}
```

Solution 9:

```
package com.hsbc.pack;
import java.util.Scanner;

public class Fib
{
    public static void main(String args[])
    {
        Scanner sc = new Scanner(System.in);
        public int sum = 0;
        public int n;
        public int a = 0;
        public int b = 1;
        System.out.println("Enter the nth value: ");
        n= sc.nextInt();
        System.out.println("Fibonacci series: ");
        while(sum <= n)
        {
            System.out.print(sum + " ");
            a = b;    // swap elements
            b = sum;
            sum = a + b;    // next term is the sum of the last two terms
        }
    }
}
```

Solution 10:

```

package com.hsbc.pack;
import java.util.Scanner;

public class Words{

public static void main(String args[]){
    public String arr[]={“aman”,“ruhika”,“utkarsh”,“navya”,“gaurav”};
    public String[] arr1=new String[5];
    public int k=0;
    public string temp;
    for(int l=0;l<5;l++)                                //reversing
    {
        StringBuilder sb=new StringBuilder(arr[l]);
        sb.reverse();
        arr1[k]=sb.toString();
        k++;
    }
    for(int i=0;i<5;i++)                                //sorting of words
    {
        for(int j=i+1;j<5;j++)
        {
            if(arr1[l].compareTo(arr1[j]>0)
            {
                temp=arr1[i];
                arr1[i]=arr1[j];
                arr1[j]=temp;
            }
        }
    }
    System.out.println(“Strings in Sorted Way”);
    for(int i=0;i<5;i++)
    {
        System.out.println(arr1[i] + “,”);
    }
}
}

```

Solution 11:

// in selection sort smallest element is found in array then swapped with first element then the index is incremented

```

package com.hsbc.pack;
import java.util.Scanner;

class SelectionSort
{
    void sort(int arr[])
    {
        public int n = arr.length;
        for (int i = 0; i < n-1; i++)

```

```

    {
        int min_idx = i;
        for (int j = i+1; j < n; j++)
            if (arr[j] < arr[min_idx])        // condition for less value
                min_idx = j;
        int temp = arr[min_idx];            //swapping the minimum found element with first element
        arr[min_idx] = arr[i];
        arr[i] = temp;
    }
}
public static void main(String args[])
{
    SelectionSort ob = new SelectionSort();
    int arr[] = {64,25,12,22,11};
    ob.sort(arr);
    System.out.println("Sorted array");
    int n = arr.length;
    for (int i=0; i<n; ++i)
        System.out.print(arr[i]+" ");    //printing array
    System.out.println();
}
}

```

Solution 12:

```

package com.hsbc.pack;
import java.util.Scanner;

```

```

    public class Shopkeeper{
        Scanner sc = new Scanner(System.in);

        public float product1=22.50;
        public float product2=44.50;
        public float product3=9.98;
        public int product;
        System.out.println("enter quantity of product 1 that was sold");
        int productQuantity1=sc.nextInt();
        System.out.println("enter quantity of product 2 that was sold");
        int productQuantity2=sc.nextInt();
        System.out.println("enter quantity of product 3 that was sold");
        int productQuantity3=sc.nextInt();
        System.out.println("enter product number");
        product=sc.nextInt();

        switch(product){
            case 1 : System.out.println("Price is product 1 is=" + product1);
                     System.out.println("Total Retail Price of product 1 is=" +
                     productQuantity1*product1);    //calc total retail price
                     break;
            case 2 : System.out.println("Price is product 2 is=" + product1);
                     System.out.println("Total Retail Price of product 2 is=" +
                     productQuantity2*product2);
                     break;
            case 2 : System.out.println("Price is product 3 is=" + product1);

```

```

        System.out.println("Total Retail Price of product 3 is=" +
        productQuantity3*product3);
        break;
        default: System.out.println("Wrong Input"); // if no input matches
    }
}
}

```

Solution 13:

```

package com.hsbc.pack;
import java.util.Scanner;

```

```

    public class Eggs{
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter number of eggs");
        int egg=sc.nextInt();
        int gross=egg/144;    // number of gross calculated
        int leftoverAfterGross= egg%144;    // calculating remainder after gross
        int dozen= leftoverAfterGross/12;
        int leftoverAfterDozen=dozen%12;    //calculating remainder after dozen
        System.out.println("Gross=" + gross + "Dozen=" + dozen + "Leftovers=" +
        leftoverAfterDozen);
    }
}

```