Cognizant Coding Question 1

Q. Every day Jaydeep and Sanjana play by telling some numbers to each other. Jaydeep says a number to Sanjana. Sanjana should first reverse the number and then check if it's the same as the original number or not. Sanjana should say "Palindrome" if it's the same otherwise "Not Palindrome". And if the number is negative then print "Invalid Input". Now help Sanjana by writing a program?

Sample Input 1:

121

Sample Output 1:

Palindrome

Sample Input 2:

4785

Sample Output 2:

Not a Palindrome

Solution in java

```java
package cognizant;

import java.util.Scanner;

public class cognizant9 {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int x=sc.nextInt();
        int temp=x;
        int res=0;
        while(x!=0){
            int digit=x%10;
            res=(res*10)+digit;
            x=x/10;
        }
        if(temp==res){
            System.out.println("Pallindrome");
        }else{
            System.out.println("Not pallindrome");
        }
    }
}
```

Cognizant Coding Question 2

Q. To speed up the composition of generating the unpredictable rhythms, The green bandits want the lists of all the prime numbers available in the range of numbers. Help him out?

Write a program to print all the prime numbers in the given interval [a,b] in which a and b both are inclusive?

Note: The 1st input should be smaller than the 2nd input. Both the inputs should be positive. The range should be always greater than the zero. The "Provide valid input" message should be get displayed if any of the conditions fail. Use minimum 1 for and while loop.

Sample Input 1:

2 15

Sample Output 1:

2 3 5 7 11 13

Sample Input 1:

8 5

Sample Output 2:

Provide Valid Input

Solution in java:

```
package cognizant;

import java.util.Scanner;

public class cognizant8 {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int x=sc.nextInt();
        int y=sc.nextInt();
        if(x<y){
            for(int i=x;i<=y;i++){
                int flag=0;
                for(int j=2;j<=Math.sqrt(i);j++){
                    if(i%j==0){
                        flag=1;
                        break;
                    }
                }
                if(flag==0){
                    System.out.print(i+" ");
                }
            }
        }else{
            System.out.println("Enter a valid Input");
        }
    }
}
```

Cognizant Coding Question 3

Q. Jaideep planned to choose a four-digit number for his new car. The numbers 3, 5, and 7 are Jaideep's favorites. Now help Jaideep to find the number, whose sum is divisible by the numbers 3, 5, and 7. Provide a valid number of cars. If the input provided is not valid then display the message "Not a valid car number"?
Note: The entered input should be only 4 digit positive numbers. If the input is negative or less than 1 the input is invalid.

Sample Input 1:
Enter the car no: 1234
Sample Output 1:
Lucky Number

Sample Input 2:
Enter the car no: 1214
Sample Output 2:
Sorry, it's not my lucky number.

Sample Input 3:
Enter the car no: 15
Sample Output 3:
15 is not a valid car number

Solution in java:

```java
package cognizant;

import java.util.Scanner;

public class cognizant10 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int x = sc.nextInt();
        if (x > 1000 && x < 10000) {
            int sum = 0;
            while (x != 0) {
                int digit = x % 10;
                sum += digit;
                x /= 10;
            }
            if(sum%3==0 || sum%5==0 || sum%7==0){
                System.out.println("Lucky number");
            }else{
                System.out.println("Sorry, it's not my lucky number.");
            }
        }else{
            System.out.println("15 is not a valid car number.Enter 4 dgit number");
        }

    }
}
```

Cognizant Coding Question 4

Q. Shambhu wants the magic board, which will display a character for the corresponding number in his science project. Now help him to develop such an application?

For Example: when the digits like 65, 66, 67, 68 are entered then the alphabet A B C and D will be displayed. Assume the no of inputs should be always 4

Sample Input 1:

Enter the digits:

65 66 67 68

Sample Output 1:

65-A 66-B 67-C 68-D

Sample Input 2:

Enter the digits:

115 116 101 112

Sample Output 2:

115-s 116-t 101-e 112-p

Solution in JAVA

```java
package cognizant;
import java.util.Scanner;


public class cognizant5 {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int arr[]=new int[4];
        for(int i=0;i<arr.length;i++){
            arr[i]=sc.nextInt();
        }
        for(int i=0;i<arr.length;i++){
            System.out.println(arr[i]+" - "+(char)arr[i]);
        }

    }
}
```

Cognizant Coding Question 5

Q. Darshan went to a movie with his fellow friends in a nearby theatre and during the half break, he purchased some pizzas, puffs, and cold drinks. Now consider the given prices:

- **100 Rs / Pizza**
- **20 Rs / Puffs**
- **10 Rs / Cold drink**

Write a program to generate the final bill so that darshan can pay?

Sample Input 1:

Enter the number of pizzas purchased: 10
The number of puffs purchased: 12
Enter the no of Cold Drinks purchased: 5

Sample Output 1:

Bill Details:
No of Pizzas: 10
The No of Puffs: 12
No of Cold drinks: 5
Total Price=1290
Enjoy the Show!!!

Solution in JAVA

```java
package cognizant;

import java.util.Scanner;

public class cognizant4 {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter no of pizzas");
        int x=sc.nextInt();
        int pcost=x*100;
        System.out.println("Enter no of puffs");
        int y=sc.nextInt();
        int pucost=y*20;
        System.out.println("Enter no of Cold drink");
        int z=sc.nextInt();
        int cdcost=z*10;
        int total=pcost+pucost+cdcost;
        System.out.println("Bill Details:");
        System.out.println("no of pizzas: "+x);
        System.out.println("no of puffs: "+y);
        System.out.println("no of cold drinks: "+z);
        System.out.println("Total cost: "+total);
        System.out.println("Enjoy the Show!!!");
    }
}
```

Cognizant Coding Question 6

Q. Write a program to print the prime number series from 1 to N where N is an input?

Sample Input 1:

15

Sample Output 1:

2 3 5 7 11 13

Sample Input 2:

5

Sample Output 2:

2 3 5

Solution in JAVA

```
package cognizant;

import java.util.Scanner;

public class cognizant3 {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int y=sc.nextInt();
        for(int i=2;i<=y;i++){
            int flag=0;
            for(int j=2;j<=Math.sqrt(i);j++){
            if(i%j==0){
            flag=1;
            break;
            }
            }
            if(flag==0){
            System.out.println(i); }
            }

        }
    }
```

Cognizant Coding Question 7

Q. Shraddha Kapoor's professor suggested her study hard and prepare well for the lesson on seasons. If her professor says month then, she has to tell the name of the season corresponding to that month. So write the program to get the solution to the above task.

- March to May – Spring Season
- June to August – Summer Season
- September to November – Autumn Season
- December to February – Winter Season

Note: The entered month should be in the range of 1 to 12. If the user enters a month less than 1 or greater than 12 then the message "Invalid Month Entered" should get displayed.

Sample Input 1:
Enter month: 6
Sample Output 1:
Season: Summer
Sample Input 2:
Enter month: 15
Sample Output 2:
Invalid Month Entered

Solution in JAVA

```java
package cognizant;
import java.util.Scanner;
public class cognizant2 {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int x=sc.nextInt();
        switch(x){
            case 1:
            case 2:
            case 12:
            System.out.println("Summer Season");
            break;
            case 3:
            case 4:
            case 5:
            System.out.println("Spring Season");
            break;
            case 6:
            case 7:
            case 8:
            System.out.println("summer season");
            break;
            case 9:
            case 10:
            case 11:
            System.out.println("Autumn Season");
            break;
            default:
            System.out.println("Invalid season");
            break;
        }
    }
}
```

Cognizant Coding Question 8

Q. Find the LCM of Two given numbers?

In this question you've to accept two numbers from the user for which you've to find the LCM of the given numbers. The LCM stands for Lowest Common Factor which is the smallest number that divides both the given numbers.

Sample Input 1:

5 10

Sample Output 1:

10

Sample Input 2:

20 60

Sample Output 2:

60

Solution in JAVA

```
package cognizant;
//LCM finding of two numbers
import java.util.*;
public class cognizant1{
    public static int lcm(int a,int b){
        int gcd=1;
        int lcm=0;
        for(int i=1;i<=a && i<=b;i++){
            if((a%i==0) && (b%i==0)){
                gcd=i;
            }
        }
        lcm=(a*b)/gcd;
        return lcm;
    }
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        int x=sc.nextInt();
        int y=sc.nextInt();
        int z=lcm(x,y);
        System.out.println(z);
    }
}
```

Link of Cognizant code:- https://learnprogramo.com/cognizant-coding-questions-with-answers-2022-updated/#Cognizant_Coding_Question_1