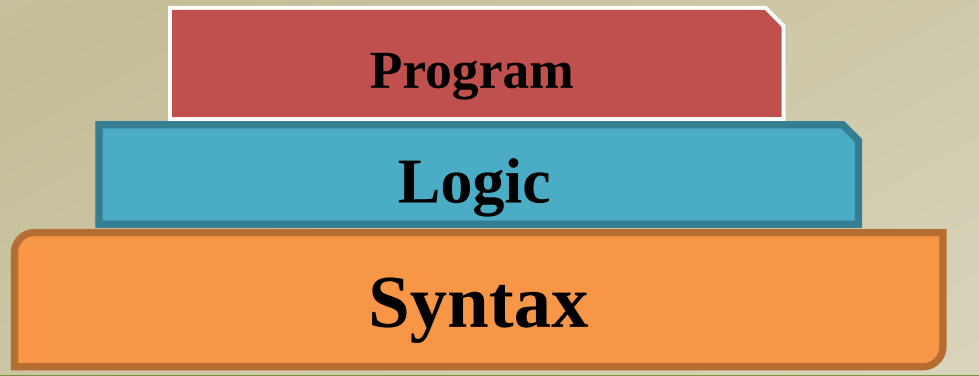
Code at Random (OPC) PVT. LTD.

Module 5: Mixed Question Based on Series



Problem Series

$$S = x - \frac{2}{x^2} + \frac{x^3}{3} - \frac{4}{x^4} + \ldots \textit{ n terms}$$

Solution to above question

```
public static void main(String[] Args)
    {
        int i,x,n;
        double s=0.0, se=0.0,so=0.0;
        Scanner sc= new Scanner(System.in);
        System.out.println("Enter the number of terms");
        n=sc.nextInt();
        System.out.println("Enter the value of x");
        x= sc.nextInt();
        for(i=1;i<=n; i++)
        {
            if(i%2!=0){
                so= so+(Math.pow(x,i)/i);
            }
            else{
                se = se + (i/Math.pow(x,i));
            }
        }
        s = so-se;
        System.out.println(s);
    }
```