PSP LAB Assignment -1

Roll No.:-SGMC21107
By   :-Sagar Gupta
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Q-1 Write a program in C++ to find the LCM of n numbers.

Ans :-

Code

```cpp
#include <iostream>
#define lli long long int
using namespace std;

int main()
{
    lli n;
    cout<<"Enter Number of terms : ";
    cin>>n;
    lli ar[n];
    lli x = 0;
    cout<<"Enter "<<n<<"Elements : ";
    for(lli i=0;i<n;i++)
    {
        cin>>ar[i];
        if(ar[i]>x)
        {
            x = ar[i];
        }
    }
    lli z,a=x;
    while(1)
    {
        z = 0;
        for(lli i=0;i<n;i++)
        {
```

```cpp
        if(x%ar[i]==0)
        {
            z++;
        }
    }
    if(z == n)
    {
        break;
    }
    x=x+a;
}

cout<<"LCM of Given Numbers is : "<<x;

}
```

OutPut

```
PS C:\Users\Sagar Gupta\OneDrive\Desktop> cd "c:\Us
Enter Number of terms : 10
Enter 10Elements : 10 20 30 40 50 60 70 80 90 100
LCM of Given Numbers is : 25200
PS C:\Users\Sagar Gupta\OneDrive\Desktop>
```

Q-2 Write a program in C++ to check if a number is palindrome or not.

Ans :-

Code

```cpp
#include <iostream>
#define lli long long int
using namespace std;

lli isPalindrome(lli a)
{
    lli s=0,r,b=a;
    while(a>0)
    {
        r=a%10;
        s=(s*10)+r;
        a=a/10;
    }
    if(s==b)
    {
        return 1;
    }
    else
    {
        return 0;
    }
}

int main()
{
    lli n;
    cout<<"Enter Number of Element You want to check are
Palindrome or not : ";
    cin>>n;
    lli x,ar[n];
    for(lli i=0;i<n;i++)
    {
        cout<<"Enter "<<i+1<<" Number :";
```

```cpp
        cin>>ar[i];
        x = isPalindrome(ar[i]);
        if(x==0)
        {
            cout<<"Number is Not Palindrome "<<endl;
        }
        else
        {
            cout<<"Number is Palindrome "<<endl;
        }
    }
}
```

OutPut

```
PS C:\Users\Sagar Gupta\OneDrive\Desktop> cd "c:\Users\Sagar Gupta\One
Enter Number of Element You want to check are Palindrome or not : 3
Enter 1 Number :12321
Number is Palindrome
Enter 2 Number :23535
Number is Not Palindrome
Enter 3 Number :2335424245332
Number is Palindrome
PS C:\Users\Sagar Gupta\OneDrive\Desktop>
```