Assignment : 1

Subject :ADVANCED DATA STRUCTURE

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Pre –Assignment ADS [DAY 1] :

1. **Write a program to display the following output using a single cout statement.**

Subject	Marks
Big Data Technologies	90
Statistics	77
Advanced Data Structures	69

Program :

```
#include <iostream>
using namespace std;

int main()
{
cout<<"\t Subject \t\t\t Marks \n\tBig Data Technologies \t\t 90 \n\tStatistic \t\t\t
77 \n\tAdvanced Data Structures \t 69 ";

return 0;
}
```

Output :~

```
Result...
CPU Time: 0.00 sec(s), Memory: 3176 kilobyte(s)                compiled and executed in 1.531 sec(s)

        Subject             Marks
    Big Data Technologies     90
    Statistic                 77
    Advanced Data Structures  69
```

2. **Write a program in c++ to swap value of two ages of Ram and Shyam without using third variable**

Program :

```
#include <iostream>
using namespace std;

int main()
{

   int ShyamAGE, RamAGE;

   cout<<"\n \t Please Enter Age of Shyam : ";
   cin>>ShyamAGE;

   cout<<"\n \t Please Enter Age of Ram : ";
   cin>>RamAGE;

   //displaying numbers Before Swapping cout

   << "\n\n\tBefore swapping." << endl;
   cout << "\n\t ShyamAGE = " << ShyamAGE << ",\t RamAGE = " << RamAGE <<
endl;

   //Swapping

   ShyamAGE = ShyamAGE + RamAGE;
   RamAGE = ShyamAGE - RamAGE;
   ShyamAGE = ShyamAGE - RamAGE;

   //displaying numbers Before Swapping

   cout << "\n\t After swapping." << endl;

   cout << "\n\t ShyamAGE = " << ShyamAGE << ", \t RamAGE = " << RamAGE <<
endl;

   return 0;
}
```

Output :

```
Result...

compiled and executed in 8.986 sec(s)
```

```
Please Enter Age of Shyam : 25

Please Enter Age of Ram : 30


Before Swapping.

ShyamAGE = 25,  RamAGE = 30

After Swapping.

ShyamAGE = 30,      RamAGE = 25
```

3. **Write a program which accepts amount as integer and display total number of Notes of Rs. 100, 50, 20, 10, 5 and 1.**
   For example, when user enter a number, 175,
   The results would be like this...

   100: 1
   50: 1
   20: 1
   10: 0
   5: 1
   1: 0

Program :

```
#include<iostream>
using namespace std;

int main()
{
        int amt,R100,R50,R20,R10,R5,R1;
        cout<<"Please Enter Amount”

   cin>>amt;
   R100=amt/100;
   amt=amt%100;
   R50=amt/50;
   amt=amt%50;
   R20=amt/20;
   amt=amt%20;
   R10=amt/10;
   amt=amt%10;
   R5=amt/5;
   amt=amt%5;
   R1=amt;
        cout<<"\nRs.100 : "<<R100<<"\nRs. 50 : "<<R50<<
                "\nRs. 20 : "<<R20<<"\nRs. 10 : "<<R10<<"\nRs. 5 : "<<R5<<"\nRs. 1 :
"<<R1;

        return 0;
}
```

Output :~

```
Result...

compiled and executed in 5.977 sec(s)
```

```
Enter amount : 386

Rs.100 : 3
Rs. 50 : 1
Rs. 20 : 1
Rs. 10 : 1
Rs.  5 : 1
Rs.  1 : 1
```

4. **Write a program which accept two T20 ODI'S averages of Mithali Raj and print their average**

Program :

```
#include <iostream>
using namespace std;

int main(){
float x,y,sum;
float average;

cout << "\n\t Enter Two T20 Averages for Mithali : " << endl;
cin>>x>>y;
sum=x+y;
average=sum/2;

cout << "The sum of " << x << " and " << y << " is " << sum << "." << endl;
cout << "\n The Total Performance Average of Mithali's T20 : " << x << " and " << y << " is " << average << "." << endl;
}
```

Output :

Result...

compiled and executed in 8.67 sec(s)

```
Enter Two T20 Averages for Mithali :
60.45
58.65
The sum of 60.45 and 58.65 is 119.1.

The Total Performance Average of Mithali's T20 : 60.45 and 58.65 is 59.55.
```

5. **Create your account in github (https://github.com) and push the above programs to your git account.**

GitHub ID : bordejayesh