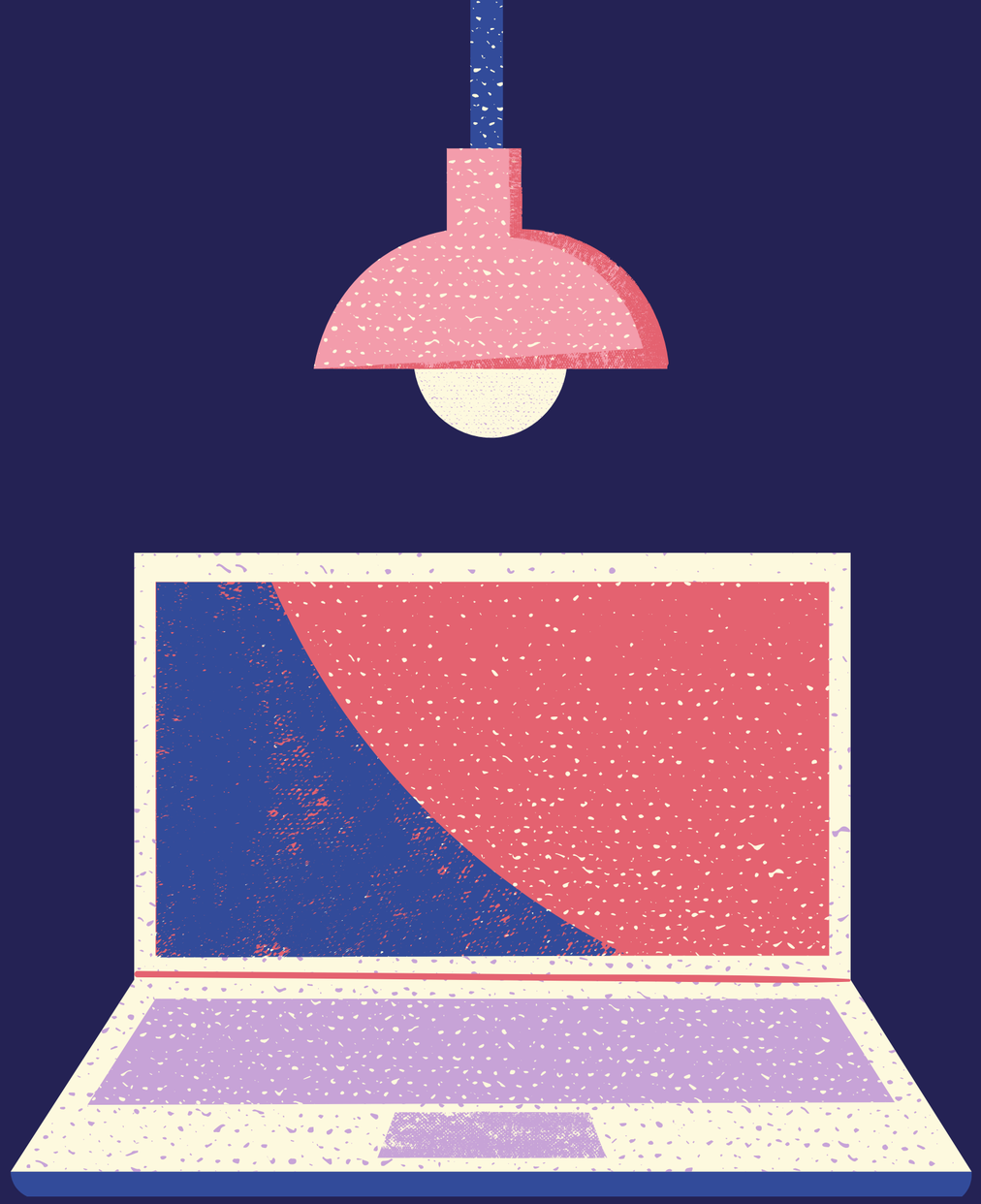


BS(CS) --2A

Jawad Ahmed

Roll No : 20P-0165

CODE

1.cpp > main()

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

int main()
{
    int M[10], j;
    M[0] = 2;
    M[1] = 4;
    M[2] = 6;
    M[3] = 8;
    M[4] = 10;
    M[5] = 12;
    M[6] = 14;
    cout << "Print all the Number  :  \n";
    cout << "Forward Loop " << endl;
    for (j = 0; j < 7; j++)
    {
        cout << "M["<< j << "]" <<  "= " << M[j] << endl;
    }
    cout << "Forward Loop End" << endl;
    cout << "Reverse Loop" << endl;
    for (j = 6; j >= 0; j--)
    {
        cout << "M[" << j << "]" << "=" << M[j] << endl;
    }
    cout << "Reverse Loop End" << endl;
    return 0;
}
```

OUTPUT

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/h
EMESTERno2/oop_lab/lab04/"1
Print all the Number  :
Forward Loop
M[0]= 2
M[1]= 4
M[2]= 6
M[3]= 8
M[4]= 10
M[5]= 12
M[6]= 14
Forward Loop End
Reverse Loop
M[6]=14
M[5]=12
M[4]=10
M[3]=8
M[2]=6
M[1]=4
M[0]=2
Reverse Loop End
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

2.cpp > main()

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

int main()
{
    string cars[4] = {"Volvo", "BMW", "Ford", "Mazda"};
    cout << cars[0] << endl;
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/home/namiirr/SEME
EMESTERno2/oop_lab/lab04/"2
Volvo
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

3.cpp > main()

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

int main()
{
    string cars[4] = {"Volvo", "BMW", "Ford", "Mazda"};
    for (int i = 0; i < 4; i++)
        cout << cars[i] << endl;
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/home/namiirr/SEMESTEF
EMESTERno2/oop_lab/lab04/"3
Volvo
BMW
Ford
Mazda
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

4.cpp > main()

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

int main()
{
    string cars[5];
    cars[0] = "Volvo";
    cars[1] = "BMW";
    cars[2] = "Ford";
    cars[3] = "Mazda";
    cars[4] = "Tesla";
    for(int j = 0; j < 5; j++)
        cout << cars[j] << endl;
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/hom
EMESTERno2/oop_lab/lab04/"4
Volvo
BMW
Ford
Mazda
Tesla
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

code

5.cpp > main()

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

int main()
{
    int arr[10];
    int i;
    cout << "\nRead and Print elements of an Array:\n";
    cout << "-------------------------------------" << endl;
    cout << "Input 10 elements in an array: "  << endl;
    for (i = 0; i < 10; i++)
    {
        cout << "Enter Element : " << i + 1 << " ";
        cin >> arr[i];
    }
    cout << "Elements in array are " << endl;
    for (i = 0; i < 10; i++)
    {
        cout << " " << arr[i] << endl;
    }
    return 0;
}
```

output

```
EMESTERno2/oop_lab/lab04/"5

Read and Print elements of an Array:
----------------------------------------
Input 10 elements in an array:
Enter Element : 1 45
Enter Element : 2 87
Enter Element : 3 98
Enter Element : 4 45
Enter Element : 5 32
Enter Element : 6 456
Enter Element : 7 787
Enter Element : 8 456
Enter Element : 9 125
Enter Element : 10 125
Elements in array are
 45
 87
 98
 45
 32
 456
 787
 456
 125
 125
```

Code

6.cpp > main()

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

int main()
{
    int n, i, a[100];
    cout << "\n\nRead n number of values from an arrray and display in reverse order" << endl;
    cout << "-------------------------------------------------------------" << endl;
    cout << "Input the number of elements to store an array : ";
    cin >> n;
    cout << "Input " << n << "  number of elements in the array : \n";
    for (i = 0; i < n; i++)
    {
        cout << "Enter element  : " << i + 1 << " ";
        cin >> a[i];
    }
    cout << "\nThe values store into an array are : \n";

    for (i = 0; i<n; i++)
        cout << " " << a[i];

    cout << "\n\nThe values stored into an array in reverse order" << endl;
    for (i = n; i >= 0; i--)
    {
        cout << " " << a[i];
    }
    return 0;
}
```

OUTPUT

```
Read n number of values from an arrray and display in reverse order
------------------------------------------------------------------
Input the number of elements to store an array : 5
Input 5  number of elements in the array :
Enter element  : 1 45
Enter element  : 2 78
Enter element  : 3 69
Enter element  : 4 69
Enter element  : 5 69

The values store into an array are :
 45 78 69 69 69

The values stored into an array in reverse order
```

7.cpp > main()

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

int main()
{
    int row, col;
    int table[3][2] = {{10, 22}, {33, 44}, {45, 78}};
    for (row = 0; row < 3; row++)
    {
        for (col = 0; col < 2; col++)
            cout << "\t" << table[row][col];
        cout << "\n";
    }
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/home/namiirr/S
EMESTERno2/oop_lab/lab04/"7
        10      22
        33      44
        45      78
```

8.cpp > main()

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

int main()
{
    string food =  "Pizza";
    string &meal = food;


    cout << food  << endl;
    cout << meal << endl;
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/
EMESTERno2/oop_lab/lab04/"8
Pizza
Pizza
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

9.cpp > main()

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

int main()
{
    string food = "Pizza";
    cout << &food << endl;
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04
EMESTERno2/oop_lab/lab04/"9
0x7ffeaaebb920
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04
```

10.cpp > main()

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

int main()
{
    string food = "Pizza";
    string* ptr = &food;


    cout << food << endl;

    cout << &food << endl;

    cout << ptr << endl;
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/home/na
/SEMESTERno2/oop_lab/lab04/"10
Pizza
0x7ffe171e6130
0x7ffe171e6130
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

11.cpp > change(int)

```cpp
#include <iostream>
using namespace std;
void change(int);

int main()
{
    int data = 3;
    change(data);
    cout << "Value of data is = " << data << endl;
    return 0;
}

void change(int data)
{
    data = 5;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/home/namiir
/SEMESTERno2/oop_lab/lab04/"11
Value of data is = 3
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

12.cpp > main()

```cpp
3
4   void swap(int *x, int *y)
5   {
6       int swap;
7       swap = *x;
8       *x = *y;
9       *y = swap;
10  }
11
12  int main()
13  {
14      int x = 500, y = 100;
15      swap(&x, &y);
16      cout << "Value of x is : " << x << endl;
17      cout << "Value of y is : " << y << endl;
18      return 0;
19  }
20
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/home/namii
/SEMESTERno2/oop_lab/lab04/"12
Value of x is : 100
Value of y is : 500
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

13.cpp > main()

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

int main()
{
    string firstName = "Jawad";
    string lastName = "Ahmed";
    string fullName = firstName + lastName;
    cout << fullName << endl;
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/h
/SEMESTERno2/oop_lab/lab04/"13
JawadAhmed
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

14.cpp > main()

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

int main()
{
    string firstName = "Jawad";
    string lastName = "Ahmed";
    string fullName = firstName + " " + lastName;
    cout << fullName << endl;
    return 0;
}
```

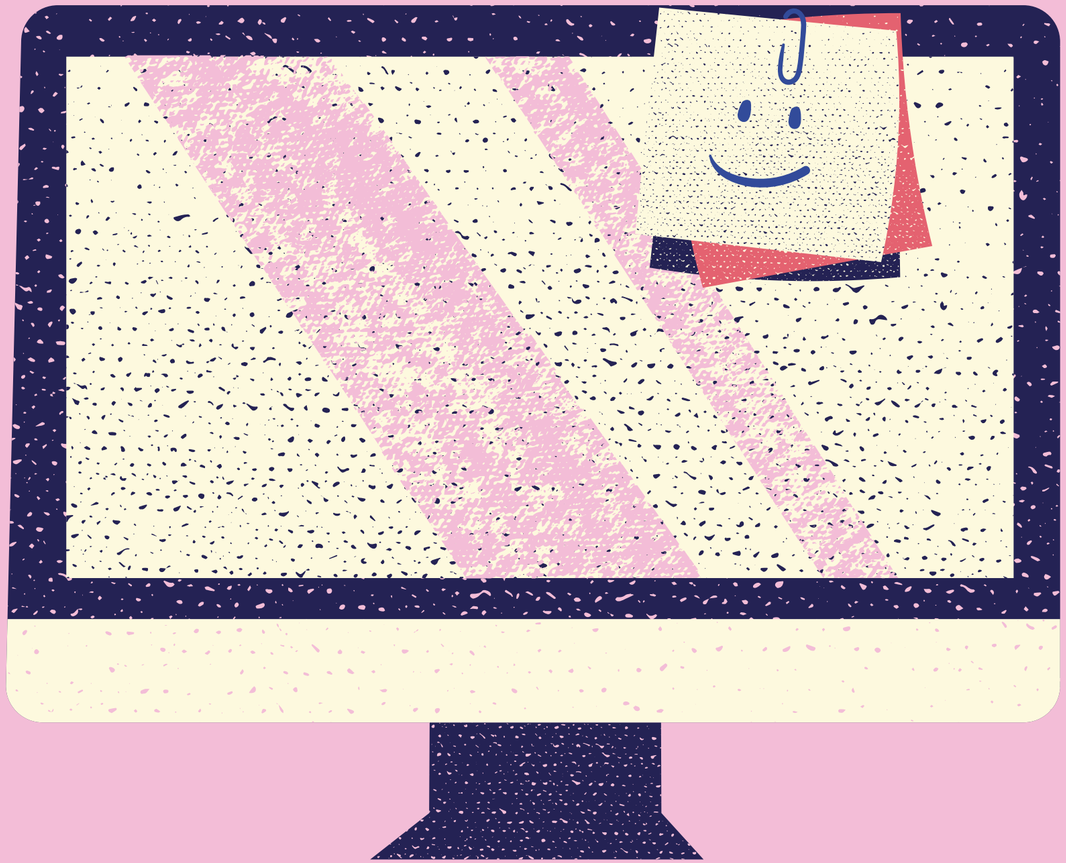
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/home/namiirr/SE
/SEMESTERno2/oop_lab/lab04/"14
Jawad Ahmed
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

BS(CS) --2A

Jawad Ahmed

Roll No: 20P-0165



15.cpp > main()

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

int main()
{
    string firstName = "Jawad";
    string lastName = "Ahmed";
    string fullName = firstName.append(lastName);
    cout << fullName << endl;
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/home/namii
/SEMESTERno2/oop_lab/lab04/"15
JawadAhmed
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

16.cpp > main()

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

int main()
{
    string x = "10";
    string y = "20";
    string z = x + y;
    cout << z << endl;
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "
/SEMESTERno2/oop_lab/lab04/"16
1020
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

17.cpp > main()

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

int main()
{
    string a = "ABCDEFGHIjklmnopqrstuvwxyz";
    cout << "The Length of the string is" << a.length() << endl;
    cout << "The Length of the string is "<< a.size() << endl;
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/home/namiirr/SEMESTERno2/
/SEMESTERno2/oop_lab/lab04/"17
The Length of the string is26
The Length of the string is 26
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

18.cpp > main()

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

int main()
{
    string a = "Hello";
    cout << a[0] << endl;
    return 0;
}
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/home/n
/SEMESTERno2/oop_lab/lab04/"18
H
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```

19.cpp > main()

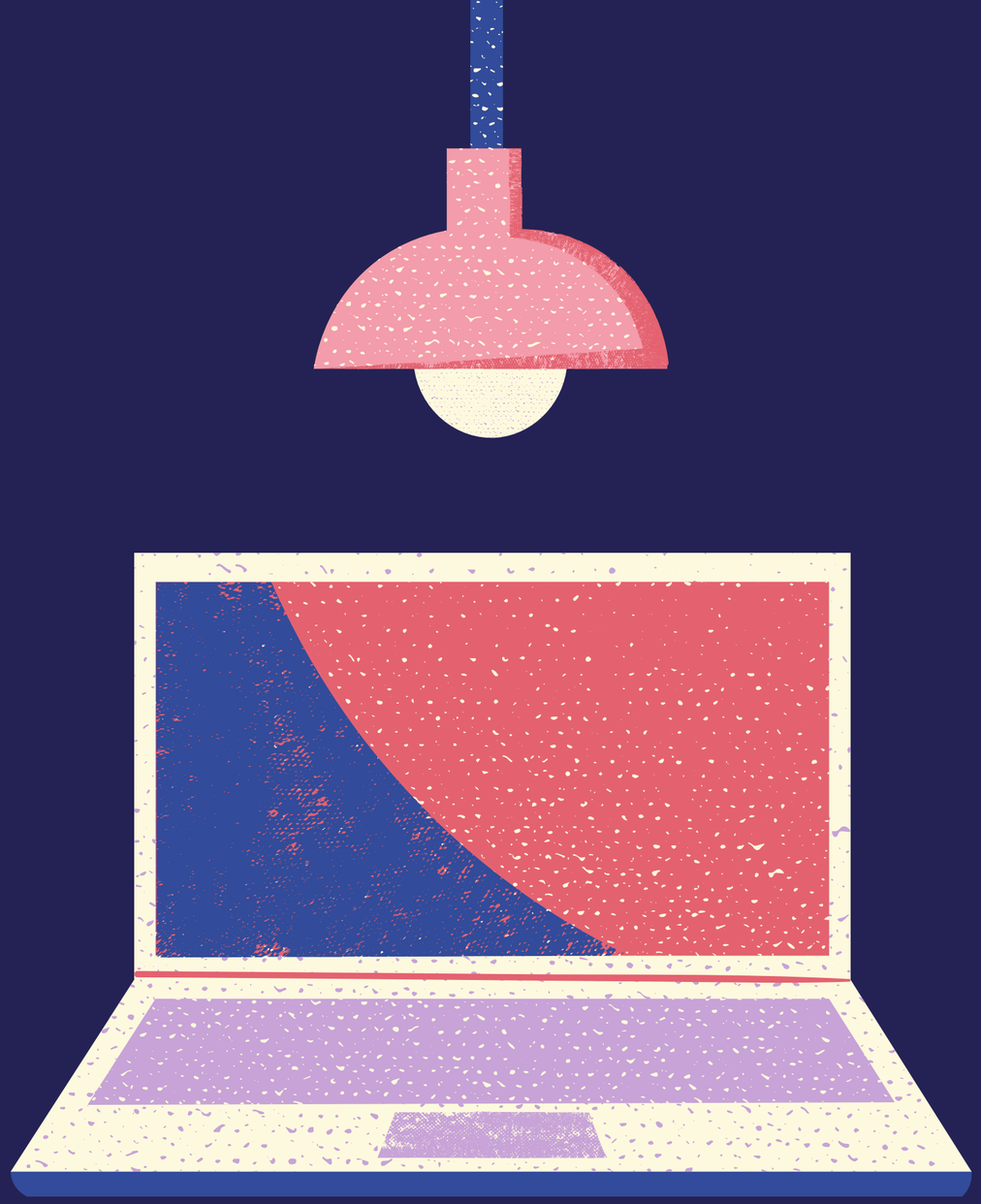
```cpp
#include <iostream>
using namespace std;

int main()
{
    string fullName;
    cout << "Type Your Full Name : ";
    getline(cin, fullName);
    cout << "Your Name is : " << fullName << endl;
    return 0;
}

```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

```
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$ cd "/home/namiirr
/SEMESTERno2/oop_lab/lab04/"19
Type Your Full Name : Jawad Ahmed
Your Name is : Jawad Ahmed
namiirr@hoonnete:~/SEMESTERno2/oop_lab/lab04$
```



BS(CS) --2A

Jawad Ahmed

Roll NO: 20P-0165