2020
23/06/2020

7th Week

17

Appointment | Notes | Work to do

Akshatha. Y.
4AL18EC005

Report:

* Data types, Arrays, Pointers.
* Introduction to Data types:

The operating system allocates memory and be stored in reserved memory based on the variables data types.

- int, float, double: The integer type holds non national numbers, which can be +ve or -ve.

Ex: Intergers would include and similar numbers

```
int a=42;
```

In most modern architectures, a float is 4 bytes, a double is, and a long double can be equivalent to a double (8 bytes), and 16 bytes

```
double temp = 4.21
```

- String, char, bool: A string is an ordered sequence of characteristics, enclosed in double quotation marks.

```
#include<string>
using namespace std:
int main(){
    String a:"I an learning C++";
    return 0;
}
```

- char test = 5'

M T W T F S S M T W T F S S M T W T F S S M T W T F S S M T MAR

Appointment Notes Work to do

- Bool online = false;
  bool logged in = true;

- Variable Naming Rules.
- Arrays.
  An array is used to store a collection of data but it may be useful to think of an array as a collection of variables. That are all the same type.
  int a[5]

- Using Arrays in Loops.

```
int myArr[5];
for (int x=0, x<5, x++){
 myArr(x) = 42;
 cout << x << " :" << myArr [x] <<
 end l;
}
```

- Arrays in Calculations.

```
int arr [] = {11, 33, 62, 555, 989};
int sum = 0;
for (int x=0; x<5; x++){
    sum+ = arr[x];
 }
 cout << Sum << end l;
```

16 SUNDAY

- Introduction to pointers.

```
int score = 5;
cout << score << end l;
```

Appointment | Notes | Work to do

- Multi-Dimensional Arrays:

A Multi Dimensional array holds one or more arrays

	column 1	column 2	column 3	column 4
Row 1	x[0][0]	x[0][1]	x[0][2]	x[0][3]
Row 2	x[1][0]	x[1][1]	x[1][2]	x[1][3]
Row 3	x[2][0]	x[2][1]	x[2][2]	x[2][3]

- Dynamic Memory:

The allocated address can be stored in a pointer which can then to access the variable.

```
int *p = new int;
*p = 5;
```

- the size of () operators.

Category	type	Minimum size
Boolean	bool	1 Byte.
Character	char	1Byte
integer	short	2 bytes.
	int	2 byts
	long	4 byts
	long long	8 bytes.

- Functions:
- Introduction to functions.

A function is a group of statements that partisan a particular task.

- Function parameters:
- Function with Multiple parameters.

```
{
cout<<x
}
```

- Default Arguements.

```
int main(){
int x = 84;
int y = 36;
int result = sum(x,y);
cout << result << endl;
result = sum(x);
cout<< result << endl;
return 0;
}
```

- Overloading:

```
Void print Number (int a){
    cout<<a;
}
```

- Recursion:

A recursive function in C++ is called itself

```
int factorial (int n){
  if (n==1){
    return 1;
  }
  else{
    return n*factorial(n-1);
  }
```