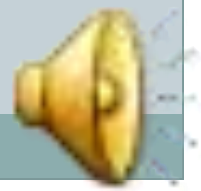
Basic of C Programming

ERRORS (PART – II)



Linker Error -

Linker errors are mainly generated when the executable file of the program is not created. This can be happened either due to the wrong function prototyping or usage of the wrong header file.

```
#include<stdio.h>
int Main()
{
    int a=78;
    printf("The value of a is : %d", a);

    return 0;
}
```

Logical Error -

- The logical error is an error that leads to an undesired output.
- These errors produce the incorrect output, but they are error-free, known as logical errors.
- These types of mistakes are mainly done by beginners.
- The occurrence of these errors mainly depends upon the logical thinking of the developer.

```
#include <stdio.h>
int main()
{
    int a=78
    printf("The value of a is : %d", a);

    return 0;
}
```

Semantic Error -

Semantic errors are the errors that occurred when the statements are not understandable by the compiler.

```
#include<stdio.h>
void main()
{
      int a,b,c;
      a=2;
      b=3;
      c=1;
      a + b = c;      // semantic error
}
```

Compile Time Error vs. Run Time Error

Compile-time	Runtime
The compile-time errors are the errors which are produced at the compile-time, and they are detected by the compiler.	The runtime errors are the errors which are not generated by the compiler and produce an unpredictable result at the execution time.
In this case, the compiler prevents the code from execution if it detects an error in the program.	In this case, the compiler does not detect the error, so it cannot prevent the code from the execution.
It contains the syntax and semantic errors such as missing semicolon at the end of the statement.	It contains the errors such as division by zero, determining the square root of a negative number.

Thank you…!