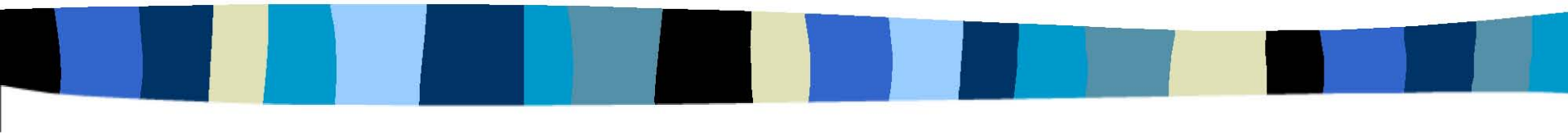
C++ PROGRAMMING



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Sample Program

```
//Sample Program
// Comments here

#include <iostream.h>
#include <conio.h>

int main( )
{
    cout << "Hello, World!";
    getch( );

    return 0;
}
```

C++ Basics

- Every C++ program should have the following line:
- int main ( )
- C++ statements should reside between { and }.
- The last statement should be **return 0;**
- For I/O purpose the following statement should be present **#include <iostream.h>**
- Use // to insert comments as part of your documentation.

C++ General Format

```
//General  Format
//Date
//Description of the Program
//
#include <iostream.h>
 #include <conio.h>

int main( )
{
    //Supply your own declaration statements
   .
   .
   getch( );
   return 0;
}
```

Predict the Output

```
//What is the output?

#include <iostream.h>
 #include <conio.h>

int main( )
{
    cout << "Hello, World!";
    cout<<"My first program!";
    getch( );
    return 0;
}
```

Predict the Output 2

```
//What is the output?
// New Lines With endl

#include <iostream.h>
#include <conio.h>

int main( )
{
    cout << "Hello, World!" <<endl;
    cout<<"My first program!"<<endl;
    getch( );
    return 0;

}
```

Input and Output Objects

common **in**put ⟶ cin

common **out**put ⟶ cout

Format:

cout << expression-1<<expression-2 …;

Semicolon is used to terminate the statement.

Example:

cout << "Have a nice day." <<endl;

How To Make a Program Pause

- The command:
  getch();
  will wait for the user to press any key on the keyboard.
- You must have #include <conio.h> to make this work.
- It is usually good to have a cout statement preceding this so the user knows why the program is stopping (user friendly).

Clear Screen

- The command:
  clrscr( );
  will clear all text from the text screen.
- You must have #include <conio.h> to make this work.

Delay Command

- The command:
  delay (100); will make the program wait for 100 milliseconds before proceeding with the next command.
- Delay time is measured in milliseconds, therefore, a delay of 1000 milliseconds equals 1 second.
- You must have #include<dos.h> in order for this to work.

Delay Time Constants

- When using the delay command, it is best to use a constant.
  const int DELAY_TIME = 100;
- This must occur AFTER the #includes and BEFORE int main().
- Then use the command
  delay (DELAY_TIME);

Sample Program Example

```
//SampleProgram.cpp
// New Lines With endl

#include <iostream.h>
#include <conio.h>

int main( )
{
        cout << "Hello, World!" << endl;
        cout << "My first program!" << endl;
        cout << "Press any key to continue…"<< endl;
        getch( );
        return 0;
}
```

Program 2A

- Sample output for program 2A
- program2A.cpp

- HelloWorld Java C++ Program