CFJ PART 1 – BASIC C/C++

Exercise Sheet 1 – Sample Solutions

3.

```
#include <iostream.h>

int main()
{

      char str[100];
      cout << "Type in something interesting : " << endl;
      cin.getline(str,100);
      cout << "You typed : " << str << endl;

      return 0;
}
```

4.

```
#include <iostream.h>
#include <math.h>

int main()
{

      int value;

      cout << "Type in a positive integer and press enter:\n";
      cin >> value;

      if (value<0) cout << "That is not a positive number!\n";
      else
         cout << "The square root of " << value << " is ";
         cout << sqrt(value) << endl;

      return 0;
}
```

5.

```
#include <iostream.h>

int main()
{
      int value;

      for(int i=0; i<10; i++){
            cout << "Why do I have to do the same exercises for
every language\n";
      }
}
```

6.

```
#include <iostream.h>

int main()
{
      int value;

      for(int row = 1; row < 7; row++){
            for(int number = 0; number<row; number++) {
                  cout << row;
            }
            cout << endl;
      }
}
```

7.

```
#include <iostream.h>

int main()
{
      int value;

      for(int row = 1; row < 7; row++){

            for(int number = 0; number < 7-row ; number++) { cout
<< " "; }
            for(int number = 0; number < row   ; number++) { cout
<< row << " "; }

            cout << endl;
      }
}
```

8.

```
#include <iostream.h>

//Display the first 20 numbers in the Fibonacci Sequence
int main()
{
      int a=0, b=1 ,c;

      for(int count=0; count<20; count++){

            if (count%5==0) cout << endl;

            cout << b << "  ";

            c = b;
            b = a + b;
            a = c;
      }
}
```

9.

```
#include <iostream.h>

//Display the first 12 Factorials in sequence
int main()
{
      int total = 1;

      for(int count=1; count<=12; count++){

            cout << "Factorial of " << count << " is ";
            cout << (total = total * count) << endl;
      }
}
```