DAILY ASSESSMENT FORMAT

Date:	22-06-2020	Name:	POOJA K S
Course:	C++ programming	USN:	4AL17EC070
Topic:	Basic concepts of c++	Semester & Section:	6th sem 'B' sec
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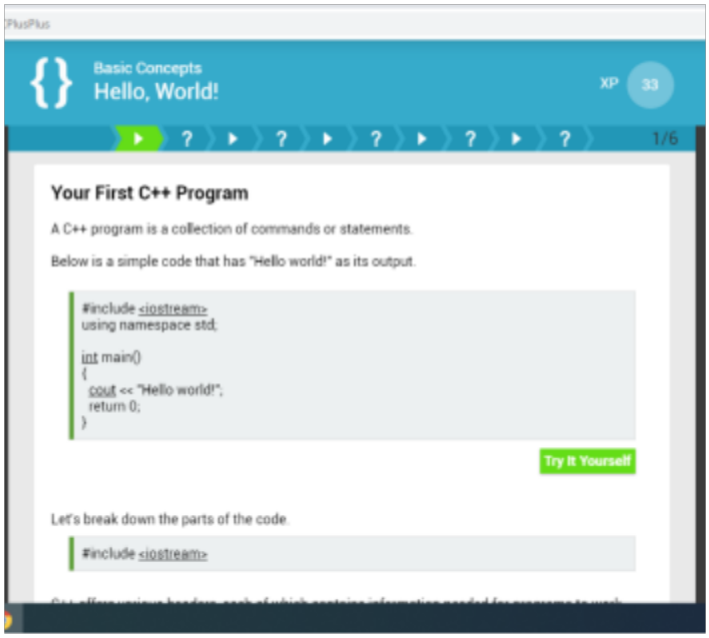
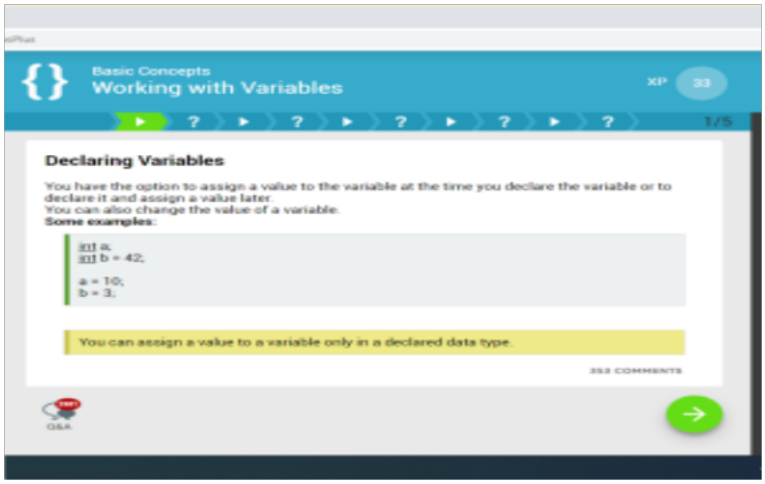
FORENOON SESSION DETAILS





C++ OOPs Concepts:

The major purpose of C++ programming is to introduce the concept of object orientation to the C programming language.Object Oriented Programming is a paradigm that provides many concepts such as inheritance, data binding, polymorphism etc.The programming paradigm where everything is represented as an object is known as truly object-oriented programming language. Smalltalk is considered as the first truly object-oriented programming language.

C++ Basic Input/Output:

C++ I/O operation is using the stream concept. Stream is the sequence of bytes or flow of data. It makes the performance fast.If bytes flow from main memory to device like printer, display screen, or a network connection, etc, this is called as output operation.If bytes flow from device like printer, display screen, or a network connection, etc to main memory, this is called as input operation.

I/O Library Header Files:

Let us see the common header files used in C++ programming are:

<iostream>It is used to define the cout, cin and cerr objects, which correspond to standard output stream, standard input stream and standard error stream, respectively.

<fstream>It is used to declare services for user-controlled file processing.

Standard output stream (cout):

The cout is a predefined object of ostream class. It is connected with the standard output device, which is usually a display screen. The cout is used in conjunction with stream insertion operator (<<) to display the output on a console

Let's see the simple example of standard output stream (cout):

```
#include <iostream>

using namespace std;

int main( ) {

  char ary[] = "Welcome to C++ tutorial";

  cout << "Value of ary is: " << ary << endl;

}
```

C++ Variable:

A variable is a name of memory location. It is used to store data. Its value can be changed and it can be reused many times.It is a way to represent memory location through symbol so that it can be easily identified.

Let's see the syntax to declare a variable:

type variable_list;

example:

int x=5,b=10; //declaring 2 variable of integer type

float f=30.8;

char c='A';

C++ Identifiers:

C++ identifiers in a program are used to refer to the name of the variables, functions, arrays, or other user-defined data types created by the programmer. They are the basic requirement of any language. Every language has its own rules for naming the identifiers.

Example:

```
#include <iostream>

using namespace std;

int main()

{

   int a;

   int A;

   cout<<"Enter the values of 'a' and 'A'";

   cin>>a;

   cin>>A;

   cout<<"\nThe values that you have entered are : "<<a<<" , "<<A;

   return 0;

}
```

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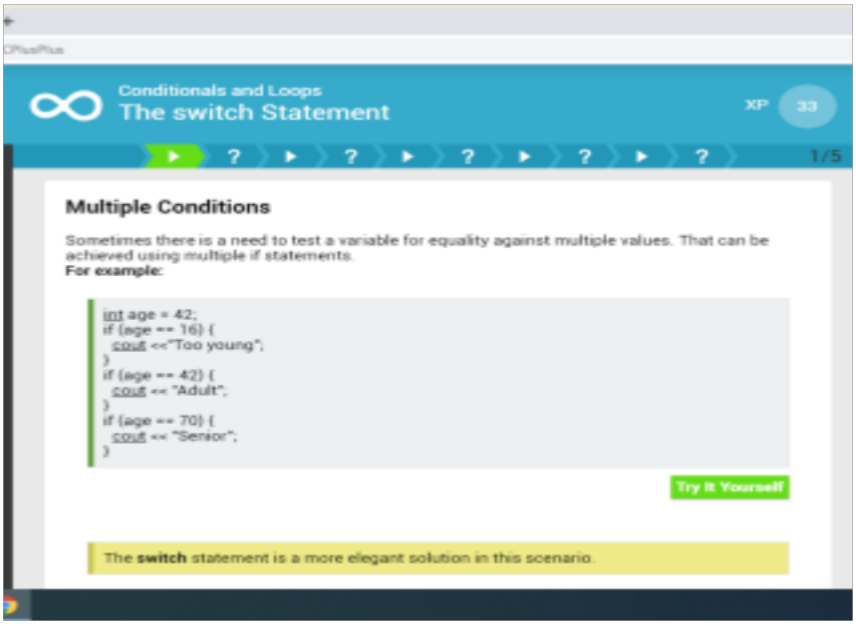
Topic:	Conditionals and loops	Semester & Section:	6th sem 'B' sec

AFTERNOON SESSION DETAILS



IF Statement:

The C++ if statement tests the condition. It is executed if condition is true.

Syntax:

```
if(condition){
//code to be executed
}
```

Example :

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

int main () {
  int num = 10;
        if (num % 2 == 0)
        {
            cout<<"It is even number";
        }
. return 0;
.}
```

IF-else Statement:

The C++ if-else statement also tests the condition. It executes if block if condition is true otherwise else block is executed.

Syntax:

```
if(condition){
//code if condition is true
}else{
```

```
//code if condition is false
}
```

Example:

```
#include <iostream>
using namespace std;
int main () {
  int num = 11;
        if (num % 2 == 0)
        {
           cout<<"It is even number";
        }
        else
        {
           cout<<"It is odd number";
        }
  return 0;
}
```

While loop:

In C++, while loop is used to iterate a part of the program several times. If the number of iteration is not fixed, it is recommended to use while loop than for loop.

Syntax:

```
while(condition){
//code to be executed
}
```

Example:

```
#include <iostream>
using namespace std;
int main() {
 int i=1;
        while(i<=10)
      {
          cout<<i <<"\n";
          i++;
        }
   }
```

Do-While Loop:

The C++ do-while loop is used to iterate a part of the program several times. If the number of iteration is not fixed and you must have to execute the loop at least once, it is recommended to use do-while loop.The C++ do-while loop is executed at least once because condition is checked after loop body.

Syntax:

```
do{
//code to be executed
}while(condition);
```

Example:

```
#include <iostream>
using namespace std;
int main() {
    int i = 1;
        do{
           cout<<i<<"\n";
           i++;
        } while (i <= 10) ;
```

}

.

For Loop:

The C++ for loop is used to iterate a part of the program several times. If the number of iteration is fixed, it is recommended to use for loop than while or do-while loops.The C++ for loop is same as C/C#. We can initialize variable, check condition and increment/decrement value.

Syntax:

```
for(initialization; condition; incr/decr){
//code to be executed
}
```

Example:

```
#include <iostream>
using namespace std;
int main() {
        for(int i=1;i<=10;i++){
          cout<<i <<"\n";
         }
   }
```