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Department of Information Technology

Academic Year: 2023-24

Lab Work: Computer programming Paradigms Lab(CPPL) ITL303

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Batch: I3
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Date of Performance :

Experiment No. 01c :

Aim: to write a program to understand the function overloading in Object Oriented Programming.

Theory:

Function overloading in Object-Oriented Programming (OOP) is a feature that allows multiple functions to have the same name but differ in the parameters they take (i.e., the number or type of parameters). This means that a single function name can be used to perform different tasks based on the input parameters.

Function overloading is a type of polymorphism, specifically compile-time (or static) polymorphism.

Algorithm:

1. START
2. Define function “print()” with different-different input types such as int, float, char.
3. Initialize variables n, p, g, for int, float, and char datatype respectively.
4. Take user input for above variables.
5. Call function “print()” for each variable separately.
6. Output, prints the respective variable values
7. END

Program Code:

```
#include<iostream>

using namespace std;

void print(int i){
   cout<<"This prints an integer value.\n"<<endl;
   cout<<"Your integer is :"<<i<<endl;
}
void print(float i){
   cout<<"This prints a float value.\n"<<endl;
   cout<<"Your number is: "<<i<<endl;

}
void print(char i){
   cout<<"This prints a character value.\n"<<endl;
   cout<<"Your character is : "<<i<<endl;
}

int main(int argc, char const *argv[])
{
   int n;
   float p;
   char g;
   cout<<"Enter your integer: "<<endl;
   cin>>n;
   cout<<"Enter your float: "<<endl;
   cin>>p;
   cout<<"Enter your character: "<<endl;
   cin>>g;
   print(n);
   print(p);
   print(g);
   return 0;
}
```

Output:

Output Clear

```
/tmp/6fBs2aZeuF.o
Enter your integer:
56
Enter your float:
7.8905
Enter your character:
A
This prints an integer value.

Your integer is :56
This prints a float value.

Your number is: 7.8905
This prints a character value.

Your character is : A


=== Code Execution Successful ===
```

Conclusion:

- Learned what is function overloading in OOPs and how to implement it through an example.

Marks Obtained:

Lab Outcome :