

Introduction to Computer(01103)

Lecture #24

Topics

- Problem Solving Techniques
 - Program
 - Algorithm
 - Flowchart
 - Flowchart guidelines
 - Flowchart Symbols

Problem Solving

- Problem Solving is a process of identifying a problem and finding the best solution for it .
- Problem Solving is a skill that can be developed by following a well organized approach .
- Different strategies , techniques and tool are used to solve a problem .

Problem Solving Techniques

- Problem Solving Techniques are as follows

- 1) Program
- 2) Algorithm
- 3) Flowchart

Program

- **Program** is a set of instructions that tells the computer what to do.
- A computer works according to the given instructions in the program. Computer programs are written in programming languages.

Programmer

- A person who develops a program is called **Programmer**.
- Programmer uses Programming languages or tools to write **Programs**.

- **Example: Program to Add Two Integers**

- `#include <iostream.h>`

- `#include <conio.h>`

-

- `Void main()`

- `{`

- `int firstNumber, secondNumber,
sumOfTwoNumbers;`

- `cout << "Enter two integers: "; cin >>
firstNumber >> secondNumber;`

```
// sum of two numbers in stored in variable  
sumOfTwoNumbers = firstNumber +  
secondNumber;  
// Prints sum  
    cout << firstNumber << " + " <<  
secondNumber << " = " << sumOfTwoNumbers;  
    return 0;  
}
```


Output

- Enter two integers: 4 5
- $4 + 5 = 9$
- In this program, user is asked to enter two integers. These two integers are stored in variables firstNumber and secondNumber respectively.

problem solving skills

- What are problem solving skills?
- **Problem solving** requires two distinct types of mental **skill**, analytical and creative. Analytical or logical thinking includes **skills** such as ordering, comparing, contrasting, evaluating and selecting. ... Creative thinking is a divergent process, using the imagination to create a large range of ideas for solutions