Computer Programming

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Session: Dumbo moves to C++

Recap

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- We know how to write a program for Mr. Dumbo
- We saw how Dumbo executes a program

Overview of This Session

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- We will see the possible problems, when Dumbo executes input/output operations interactively
  - A solution to the problem
- Moving over to C++
  - Similarity between a Dumbo program and a C++ program

Interactive input output

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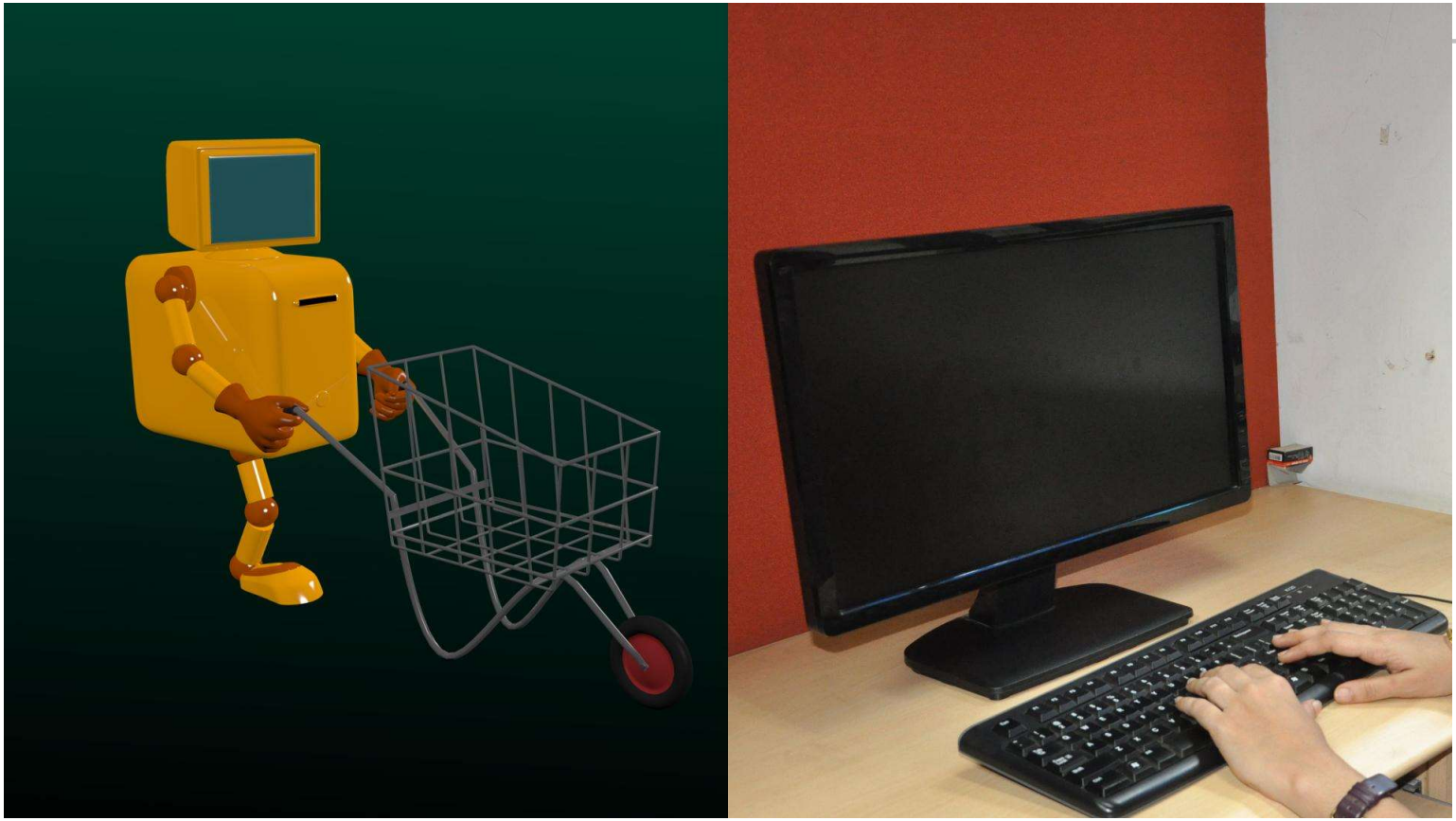
- Let us assume that we use
  - Keyboard for supplying input values to Mr. Dumbo
  - Monitor, on which Mr. Dumbo displays output values

- Problem
  - Mr Dumbo executes the instruction

```
Input NBOYS;
```

Mr Dumbo executes: Input NBOYS;



Instruction to Output a Message

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```
Output "Enter Number of Boys";
```

- Mr. Dumbo shows us the string enclosed in double quotes
- Our output can be made more meaningful too

Modified program for Dumbo


```
Use locations NBOYS, NGIRLS, NSTUDENTS;
Output ”Enter number of boys “;
Input NBOYS;
Output ”Enter number of girls “;
Input NGIRLS;
NSTUDENTS = NBOYS + NGIRLS;
Output ”The total number of students is “;
Output NSTUDENTS;
```

Input Output operations

- Mr. Dumbo executes the modified program

A C++ Program for finding NSTUDENTS


```
{ int NBOYS, NGIRLS, NSTUDENTS;
  cout <<"Enter number of boys ";
  Cin >> NBOYS;
  cout << "Enter number of girls ";
  cin >> NGIRLS;
  NSTUDENTS = NBOYS + NGIRLS;
  cout << "The total number of students is ";
  cout << NSTUDENTS;
  return 0;
}
```

Summary

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- We have understood how interactive I/O can be handled
- We have learnt what an actual computer program looks like
  - A C++ program does look familiar now

Next, we will see C++

Thank You