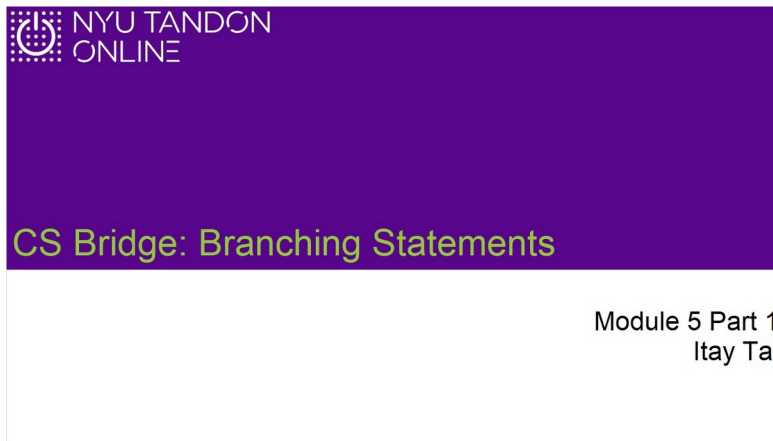


CS Bridge Module 5 Branching Statements Part 1

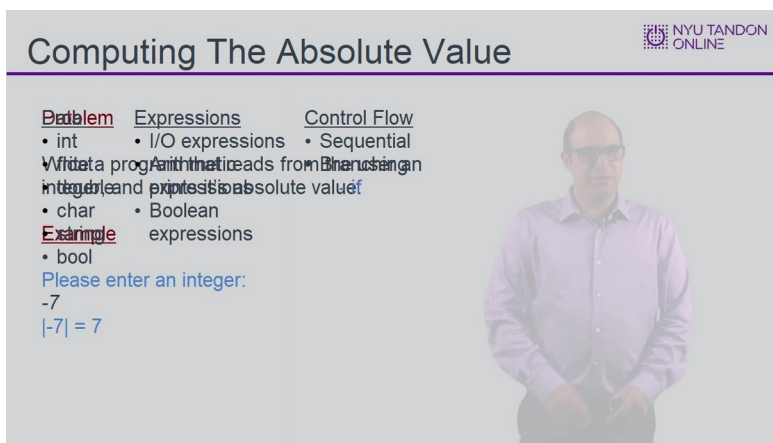
4. Title Slide

4.1 CS Bridge: Branching Statements



1. Motivation

1.1 Computing The Absolute Value




Notes:


2. One Way if Statements

2.1 Syntax and Semantics

Syntax and Semantics




```
***
***
if (condition)
***
***
***
```



Notes:

2.2 Computing the Absolute Value

Computing the Absolute Value




Problem

Write a program that reads from the user an integer, and prints it's absolute value.

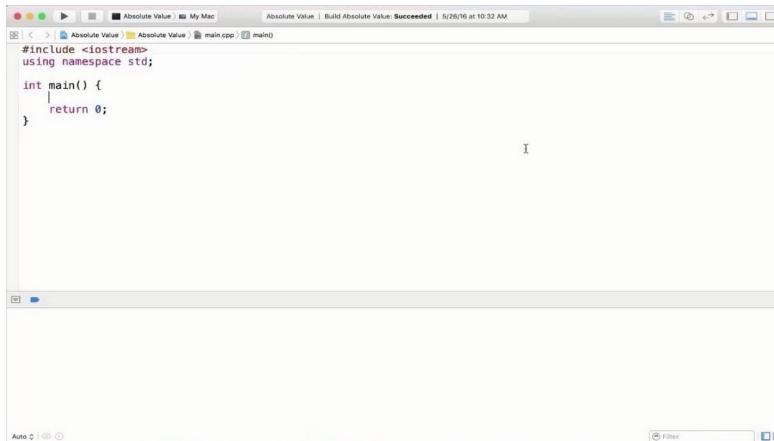
Example

Please enter an integer:
-7
 $|-7| = 7$



Notes:

2.3 Computing the Absolute Value



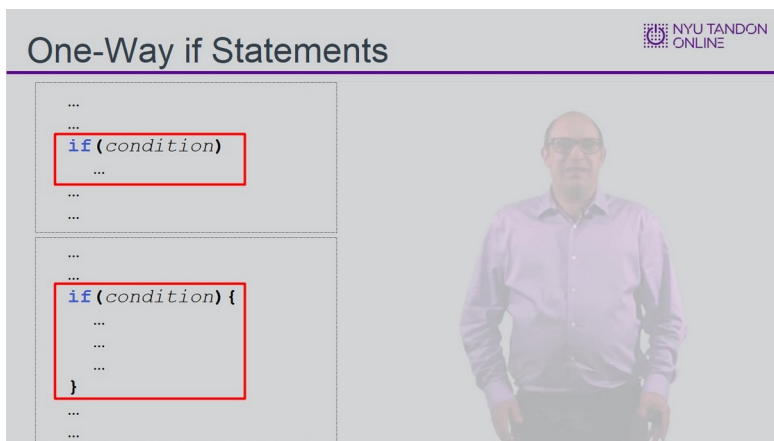
A screenshot of a C++ IDE window titled "Absolute Value". The window shows a single file named "main.cpp" with the following code:

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

int main() {
    return 0;
}
```

The IDE interface includes a menu bar at the top, a toolbar, and a status bar at the bottom indicating "Auto C" and "Filter".

2.4 One-Way if Statements



A presentation slide titled "One-Way if Statements" from NYU Tandon Online. The slide features two code snippets on the left, each enclosed in a red box, and a presenter on the right.

The first code snippet shows a basic if statement:

```
...
if(condition)
...
```

The second code snippet shows an if statement with a block of code:

```
...
if(condition){
    ...
}
...
```

The presenter is a man with glasses wearing a purple shirt. The NYU Tandon Online logo is in the top right corner.

Notes:

3. Two way if statements

3.1 Determining Parity


Determining Parity

NYU TANDON ONLINE

Problem	Expressions	Control Flow
• int	• I/O expressions	• Sequential
Write a program that reads from the console a positive integer and determines its parity (even or odd)	• Boolean expressions	• Branching - if-else
• string expressions		

Example

Please enter a positive integer:
7
7 is odd



Notes:


3.2 Syntax and Semantics

Syntax and Semantics

NYU TANDON ONLINE

```
...
if (condition)
...
else
...
...
```

```
...
if (condition) {
...
}
else {
...
}
...
```



Notes:

3.3 Determining the Parity

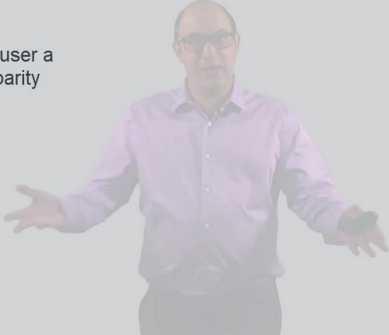
Determining the Parity

Problem

Write a program that reads from the user a positive integer, and determines its parity (even or odd).

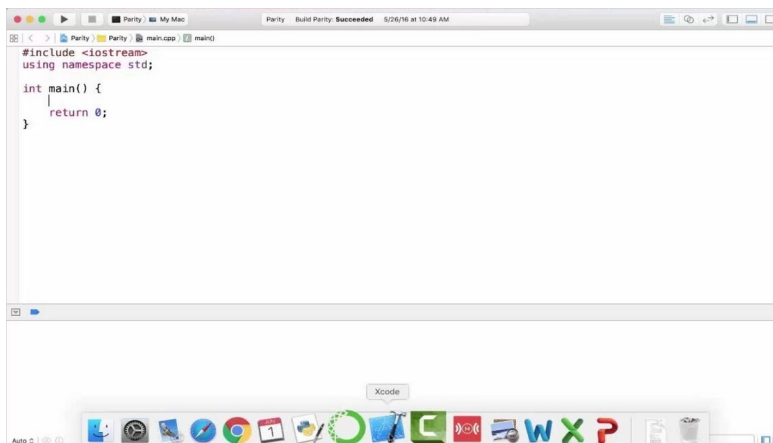
Example

Please enter a positive integer:
7
7 is odd



Notes:


3.4 Determining the Parity Implementation



Notes:

3.5 Sequence of if vs. if-else


Sequence of if vs. if-else



```
int main(){
    int userInput;

    cout<<"Please enter a positive integer"<<endl;
    cin>>userInput;


    if(userInput % 2 == 0){
        cout<<userInput<<" is even"<<endl;
    }
    else if(userInput % 2 == 1){
        cout<<userInput<<" is odd"<<endl;
    }
    return 0;
}
```



Notes:

3.6 Boolean Interpretation


Boolean Interpretation



```
int main(){
    int val = 0;


    if(val = 0)
        cout<<"val is 0"<<endl;
    else
        cout<<"val is not 0"<<endl;

    return 0;
}
```



Notes:

3.7 End of Module



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ONLINE

End of Module

Exit