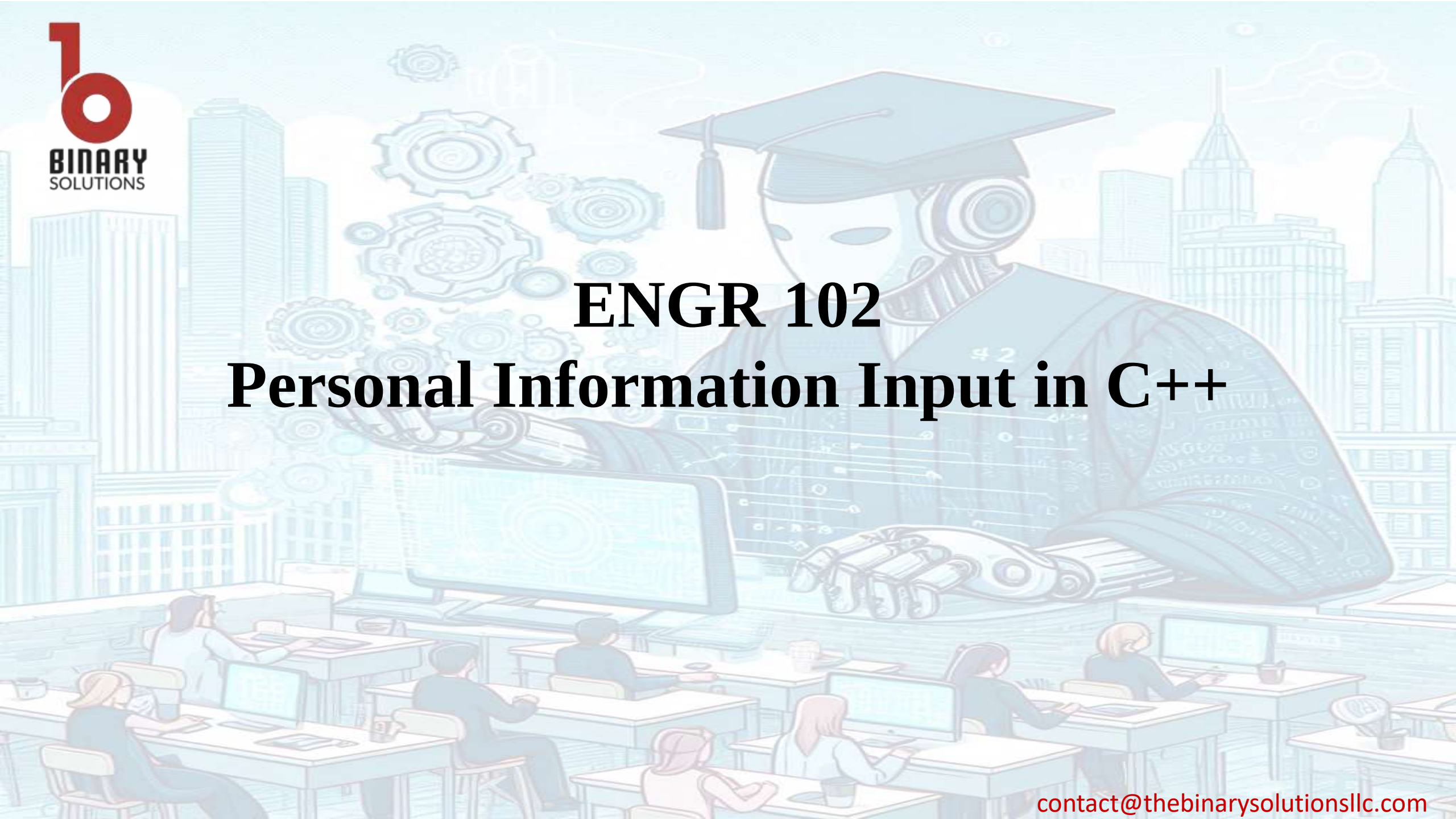

ENGR 102
Personal Information Input in C++

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Introduction

This program prompts the user to input personal information such as age, height, the day of the week, and the predicted Super Bowl-winning team.

Problem Statement

- Prompt the user to enter their age.
- Prompt the user to enter their height in inches.
- Prompt the user to enter the day of the week.
- Prompt the user to enter the predicted SuperBowl winner.
- Display the entered age, age with height, and the predicted SuperBowl winner using formatted output.

Solution Steps

- Declare variables to store the age, height, day of the week, and Super Bowl-winning team.
- Prompt the user to input their age, height, the day of the week, and the predicted Super Bowl-winning team.
- Display the collected information.

Pseudo Code

1. Begin main function.

   1.1 Declare variables:

   - AGE: integer for the user's age

   - hh: double for the user's height in inches

   - D: string for the day of the week

   - SBT: string for the name of the SuperBowl-winning team

   1.2 Prompt the user to enter their age and store the input in the variable AGE.

   1.3 Prompt the user to enter their height in inches and store the input in the variable hh.

   1.4 Prompt the user to enter the day of the week and store the input in the variable D.

   1.5 Prompt the user to enter the name of the team they believe will win the SuperBowl and store the input in the variable SBT.

   1.6 Output the user's age with the text "You are AGE years old".

   1.7 Output the user's age and height with the text "You are AGE years old with height of hh inches".

   1.8 Output the name of the SuperBowl-winning team with the text "Team SBT will win the SuperBowl".

   1.9 End main function.

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C++ Code

```
#include <iostream>
#include <string>
using namespace std;
int main() {
    int AGE;
    double hh;
    string D, SBT;
    cout << "Enter your age: ";
    cin >> AGE;
    cout << "Enter your height in inches: ";
    cin >> hh;
    cout << "Enter day of the week: ";
    cin >> D;
    cout << "Enter name of the team that will win the SuperBowl: ";
    cin >> SBT;
    cout << "You are " << AGE << " years old" << endl;
    cout << "You are " << AGE << " years old with height of " << fixed << hh << " inches" << endl;
    cout << "Team " << SBT << " will win the SuperBowl" << endl;
    return 0;
}
```

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Code Explanation

- **#include <iostream>#include <string>using namespace std;**

These lines include necessary header files.

- **int main() {**

This line marks the beginning of the ‘main’ function, which is the entry point of the program.

- **int AGE; double hh; string D, SBT;**

These lines declare variables ‘AGE’ (for age), ‘hh’ (for height), ‘D’ (for day of the week), and ‘SBT’ (for SuperBowl team) without initializing them.

- **cout << "Enter your age: "; cin >> AGE; cout << "Enter your height in inches: "; cin >> hh; cout << "Enter day of the week: "; cin >> D; cout << "Enter name of the team that will win the SuperBowl: "; cin >> SBT;**

These lines prompt the user to enter their age, height, day of the week, and the name of the SuperBowl-winning team. User inputs are stored in respective variables using ‘cin’.

Code Explanation

- **cout << "You are " << AGE << " years old" << endl; cout << "You are " << AGE << " years old with height of " << fixed << hh << " inches" << endl; cout << "Team " << SBT << " will win the SuperBowl" << endl;**

These lines output the user's age, height, and the SuperBowl-winning team to the standard output stream (typically the console).

- **return 0;}**

This line indicates the end of the ‘main’ function and returns an integer value of ‘0’ to the operating system, typically indicating successful execution.

Final Answer

- The program prints the user's age, age with height, and the predicted SuperBowl winner in a formatted manner.

```
Output

/tmp/gdBLAG3W5S.o
Enter your age: 24
Enter your height in inches: 5.2
Enter day of the week: 2
Enter name of the team that will win the SuperBowl: A
You are 24 years old
You are 24 years old with height of 5.200000 inches
Team A will win the SuperBowl
```

Additional Comments/Tips

- Ensure users input data accurately to obtain correct results.
- Validate inputs to handle unexpected user responses gracefully.

Conclusion

This program provides a basic interface for users to input personal information, facilitating data collection for various purposes such as surveys or applications.