**Project:** Programming Tutorial

**Basic Programming Skills:**

* Input & Output
* Variables
* Conditional Statements
* Loops
* Modules [Functions]
* Arrays
* Save & Retrieve Data

**Features:**

* Quiz the user
* Modularize the Code
* Allow for saving student’s data

**Brief Description:**

This is a Programming Tutorial program, where the user will learn skills like: how to receive input from a user and print the output to the screen, declare variables, save & retrieve data. Also will learn how to write conditional statements, loops & arrays and how to build a module. Extra features of the program include: quizzes, modularizing code and allowing the student to save their data.

**Pseudocode:**

Start

Display”Hello! What is your name?”

Input userName

Display”Welcome to your Programming Tutorial. Ready to begin?”

Input letsGo

Display”Look at this example: “

Display :

“#include <iostream>

#include <iomanip>

using namespace std;

void main()

{

1 cout << “Box Office\n”;

2 int child, adult, total;

3 cout << “Please enter the number of kids tickets sold today: \n”;

4 cin >> child;

5 cout << “Please enter the number of adult tickets sold today: \n”;

6 cin >> adult;

7 cout << " \n";

8 cout << " \n";

9 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10 cout << “Total tickets sold today: \n” << total << endl;

11 system (“pause”)

}”

Display”What line is responsible for user input?”

Input answer1

Calculate if user’s input is the same as the correct answer [lines 4, 6]

Display”Correct! Hooray you got it! Move on?” if correct

Input nextLevel if correct to move onto the next level

Display”Uhoh! That’s not quite it, let’s try again.” if incorrect

Stop

**IPO Chart:**

|  |  |  |
| --- | --- | --- |
| **INPUT** | **PROCESSING** | **OUTPUT** |
| * User’s name * User’s answers | * Compare user answer to correct answer | * User answer + whether correct\wrong |

**Sample Screens:**





