

## Programming Project

Basil Ahmed

6<sup>th</sup> of October

## Programming Project

## Cinema Screen Reservation Program

## Code

```
// Cinema Reservation Program - Basil Ahmed

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

#define rows 3
#define cols 5

void printSeats(string seats[rows][cols]);

int main() {
    string seats[rows][cols];
    int count = 1; // helper variable
    for (int i = 0; i < rows; i++) {
        for (int j = 0; j < cols; j++) {
            seats[i][j] = to_string(count);
            count++;
        }
    }

    // index = row * length_of_row + col
    // row = (index-col)/length_of_row
    int usr, row, col;
    cout << "Please Enter Number of Seat U want to Reserve: ";
    cin >> usr;
    col = usr % cols;
    row = (usr-col)/cols;
    seats[row][col] = "#";

    printSeats(seats);

    return 0;
}

void printSeats(string seats[rows][cols]) {
    for (int i = 0; i < rows; i++) {
        for (int j = 0; j < cols; j++) {
            cout << seats[i][j] << " ";
        }
    }
}
```

```

    }
    cout << endl;
}
}

```

## Results

```

1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
Please Enter Number of Seat U want to Reserve: 10
1 2 3 4 5
6 7 8 9 #
11 12 13 14 15

```

## ATM Banking System

## Code

```

// ATM Banking System - Basil Ahmed

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

#define PASS 7789 // pasword
#define BALANCE 6123.5 // current balance
int main() {
    int pass, withdraw;
    cout << "Enter Password: ";
    cin >> pass;
    if (pass != PASS) { // if password incorrect
        cout << "Incorrect password" << endl;
        return 1;
    }
    cout << "Account Balanace: " << BALANCE << endl;
    cout << "Enter the amount you would like to withdraw: ";
    cin >> withdraw;
    cout << "Remaining Balance: " << BALANCE-withdraw << endl;

    return 0;
}

```

## Results

```
Enter Password: 7789
Account Balanace: 6123.5
Enter the amount you would like to withdraw: 2000
Remaining Balance: 4123.5
```

## Attendance Sheet Program

### Code

```
// Attendance Sheet Program - Basil Ahmed

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

int main() {
    string students[5];
    string absence[5];
    cout << "Enter Students Name" << endl;
    for (int i = 0; i < 5; i++) {
        cin >> students[i];
    }
    for (int i = 0; i < 5; i++) {
        cout << "Is the student " << students[i] << " absent? ";
        cin >> absence[i];
    }
    for (int i = 0; i < 5; i++) {
        cout << students[i] << " " << absence[i] << endl;
    }
    return 0;
}
```

**Results**

```
Enter Students Name
Basil
Ahmed
Mohamed
Ibrahim
Adam
Is the student Basil absent? N
Is the student Ahmed absent? N
Is the student Mohamed absent? Y
Is the student Ibrahim absent? Y
Is the student Adam absent? N
Basil N
Ahmed N
Mohamed Y
Ibrahim Y
Adam N
```