

Question 2:

```
1  #include <iostream>
2
3  using namespace std;
4
5  int main() {
6      const int number = 5;
7      int counts[number] = {0};
8      int spoiltballot = 0;
9
10     while (true) {
11         int candidate;
12
13         cout << "Enter the candidate number 1 to 5 (0 to stop)" << endl;
14         cin >> candidate;
15
16         if (candidate == 0) {
17             break;
18         }
19
20         if (candidate >= 1 && candidate <= 5) {
21             counts[candidate - 1]++;
22         }
23
24         else {
25             spoiltballot++;
26         }
27     }
28
29     for (int i = 0; i < number; i++) {
30         cout << "Candidate " << (i + 1) << ": " << counts[i] << " votes" << endl;
31     }
32
33     cout << "Spoilt Ballots: " << spoiltballot << endl;
34
35     return 0;
36 }
37
```

```
Enter the candidate number 1 to 5 (0 to stop)
1
Enter the candidate number 1 to 5 (0 to stop)
3
Enter the candidate number 1 to 5 (0 to stop)
4
Enter the candidate number 1 to 5 (0 to stop)
0
Candidate 1: 2 votes
Candidate 2: 2 votes
Candidate 3: 2 votes
Candidate 4: 2 votes
Candidate 5: 1 votes
Spoilt Ballots: 0
PS C:\Users\Zana\projects\uni>
```

Question 3:

```
#include <iostream>
#include <string>

using namespace std;

class BankAccount {
private:
    string name;
    string number;
    string type;
    double balance;

public:
    BankAccount(const string& n, const string& Num, const string& T, double B) {
        name = n;
        number = Num;
        type = T;
        balance = B;
    }

    void input() {
        cout << "Enter name: ";
        cin >> name;
        cout << "Enter account number: ";
        cin >> number;
        cout << "Enter account type: ";
        cin >> type;
        cout << "Enter initial balance: $";
        cin >> balance;
    }

    void deposit(double amount) {
        cout << "How much would you like to deposit" << endl;
        cin >> amount;
        if (amount > 0) {
            balance += amount;
            cout << "Deposited $" << amount << ". New balance: $" << balance << endl;
        } else {
            cout << "Invalid deposit amount. Please enter a positive amount." << endl;
        }
    }

    void withdraw(double amount) {
        cout << "How much would you like to withdraw" << endl;
        cin >> amount;
        if (amount > 0 && amount <= balance) {
            balance -= amount;
            cout << "Withdrew $" << amount << ". New balance: $" << balance << endl;
        } if (amount == 0){
            cout << "No withdrawl" << endl;
        } else {
            cout << "Invalid withdrawal amount or insufficient balance." << endl;
        }
    }

    void display() {
        cout << "Name: " << name << endl;
        cout << "Account Number: " << number << endl;
        cout << "Balance: $" << balance << endl;
    }
};

int main() {
    BankAccount account("", "", "", 0.0);

    account.input();
    cout << endl;
    account.display();
    cout << endl;
    account.deposit(0.0);
    cout << endl;
    account.withdraw(0.0);
    cout << endl;
    account.display();
    cout << endl;

    return 0;
}
```

```
Enter name: Zana
Enter account number: 6341
Enter account type: Bank
Enter initial balance: $60
```

```
Name: Zana
Account Number: 6341
Balance: $60
```

```
How much would you like to deposit
30
Deposited $30. New balance: $90
```

```
How much would you like to withdraw
0
Invalid withdrawal amount or insufficient balance.
```

```
Name: Zana
Account Number: 6341
Balance: $90
```

Question 4:

```
#include <iostream>

using namespace std;

class AddAmount {
private:
    double amount;
public:
    AddAmount() {
        amount = 50.00;
    }

    AddAmount(double additionalAmount) {
        amount = 50.00 + additionalAmount;
    }

    void displayAmount() {
        cout << "The final amount in the Piggy Bank is: $" << amount << endl;
    }

    void getUserInput() {
        double additionalAmount;
        cout << "Enter the amount to add to the Piggy Bank: $";
        cin >> additionalAmount;
        amount += additionalAmount;
    }
};

int main() {
    AddAmount piggyBank;

    cout << "Initial amount in the Piggy Bank: $50.00" << endl;
    piggyBank.getUserInput();

    piggyBank.displayAmount();

    return 0;
}
```

```
Initial amount in the Piggy Bank: $50.00
Enter the amount to add to the Piggy Bank: $24.32
The final amount in the Piggy Bank is: $74.32
```