Assignment 2 outputs:

Task 1:

```
Enter a number:
123456
654321
```

Task 2.1:

```
            c
        i       i
      s           s
      b             b
    e                   e
    s                       s
  t s e b s i c i s b e s t
```

Task 2.2:

```
                              *******
                              *     *
                              *     *
                        ******      *
                        *           *
                        *           *
                  ******            *
                  *                 *
                  *                 *
            ******                  *
            *                       *
            *                       *
      ******                        *
      *                             *
      *                             *
  ******************************** 
```

Task 2.3:

Sir for us, sleeker than this wasn't possible.

```
                *
              - * -
            * -   - *
          - *       * -
        * -           - *
      - *               * -
    * -                   - *
  - * ****1**** * -
  * - ***121*** - *
  - * **12321** * -
  * - *1234321* - *
  - * 123454321 * -
  * - *1234    * - *
  - * **123   ** * -
  * - ***12 *** - *
  - * ****1**** * -
  * -                   - *
    - *               * -
      * -           - *
        - *       * -
          * -   - *
            - * * -
              * -
```

Task 3:

```
Enter first number b/w 1 and 36: 1
Enter second number b/w 1 and 36: 20
The two numbers have the same color!
● hassan@Hassans-MacBook-Air Hello world % cd "/Users
  2_q3.cpp -o 2024229_2_q3 && "/Users/hassan/Library/
Enter first number b/w 1 and 36: 1
Enter second number b/w 1 and 36: 9
The two numbers have different colors.
```

Task 4:

```
Enter a non-zero 16-bit integer: 34
Binary representation of 34 is: 0000000000100010
Gray code for 34 is: 0000000000110011
```

Task 5:

```
Transaction type?: W
Account number?: 1009
Amount?: 45
Account not found or closed.
Transaction type?: O
Initial deposit?: 100
Account opened successfully. Account Number: 1001
Transaction type?: E
Exiting program.
```

Task 6:

```
Transaction type (O, B, D, W, C, S (I, P, E) )?: O
Initial deposit?: 200
Set a 4-digit PIN: 1234
Account opened. Account number: 1001
Transaction type (O, B, D, W, C, S (I, P, E) )?: W
Account number?: 1001
Amount?: 100
Enter your PIN: 1234
Withdrew $100.00 from account 1001
New Balance: $100.00
Transaction type (O, B, D, W, C, S (I, P, E) )?:
```

Task 7:

```
Enter the number of gallons used: 55
Do you want to input more gallons? (Y/N): y
Enter the number of gallons used: 60
Do you want to input more gallons? (Y/N): y
Enter the number of gallons used: 78
Do you want to input more gallons? (Y/N): y
Enter the number of gallons used: 200
Do you want to input more gallons? (Y/N): n
Total gallons used: 393 gallons.
Total bill for 393 gallons is: Rs 41553.00
Service Charge of 14% is added.
 Bill before service charge: Rs 36450.00
```