Digital Design Verification

Lab # 03

LOOPS, Problem Solving

Submitted by:

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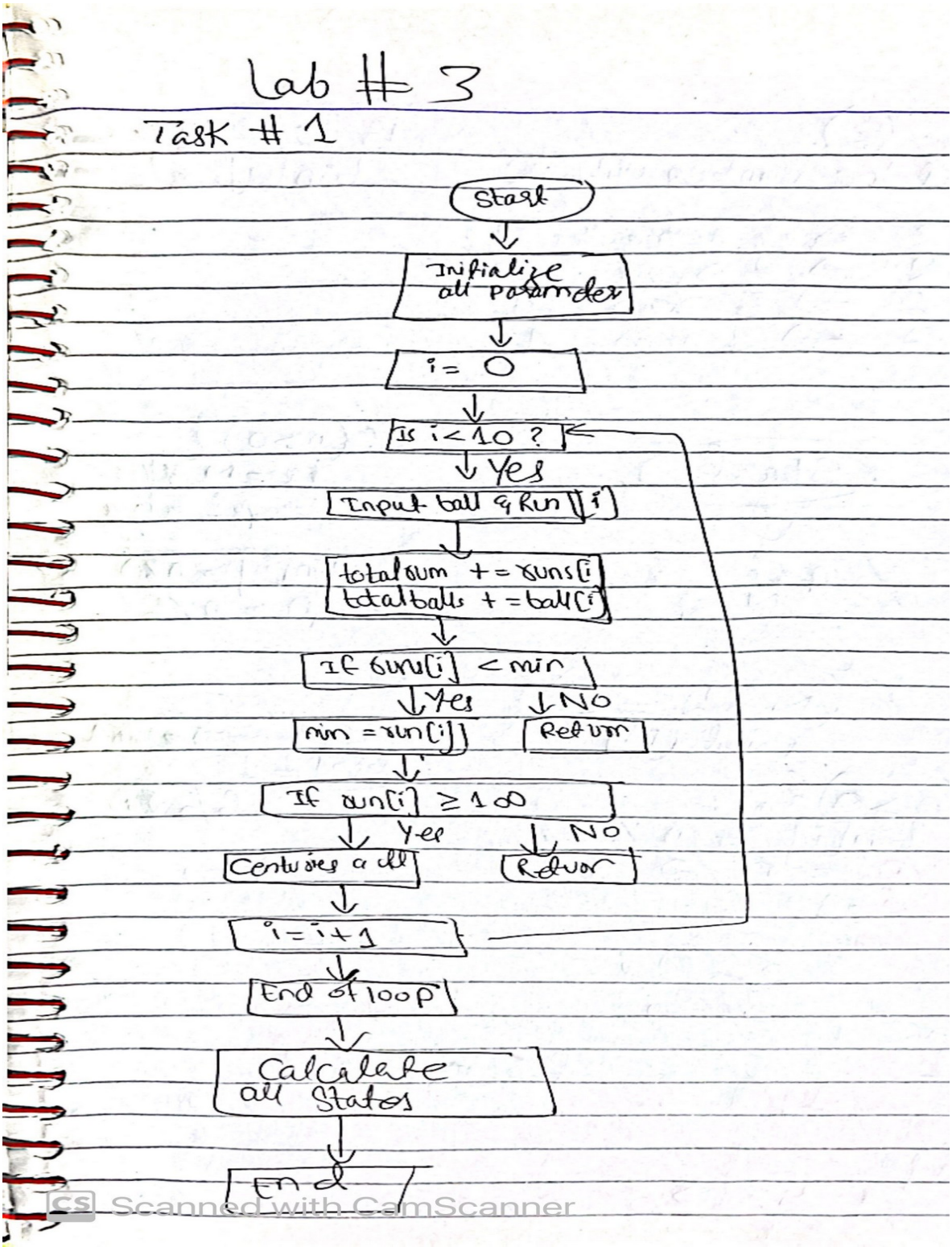
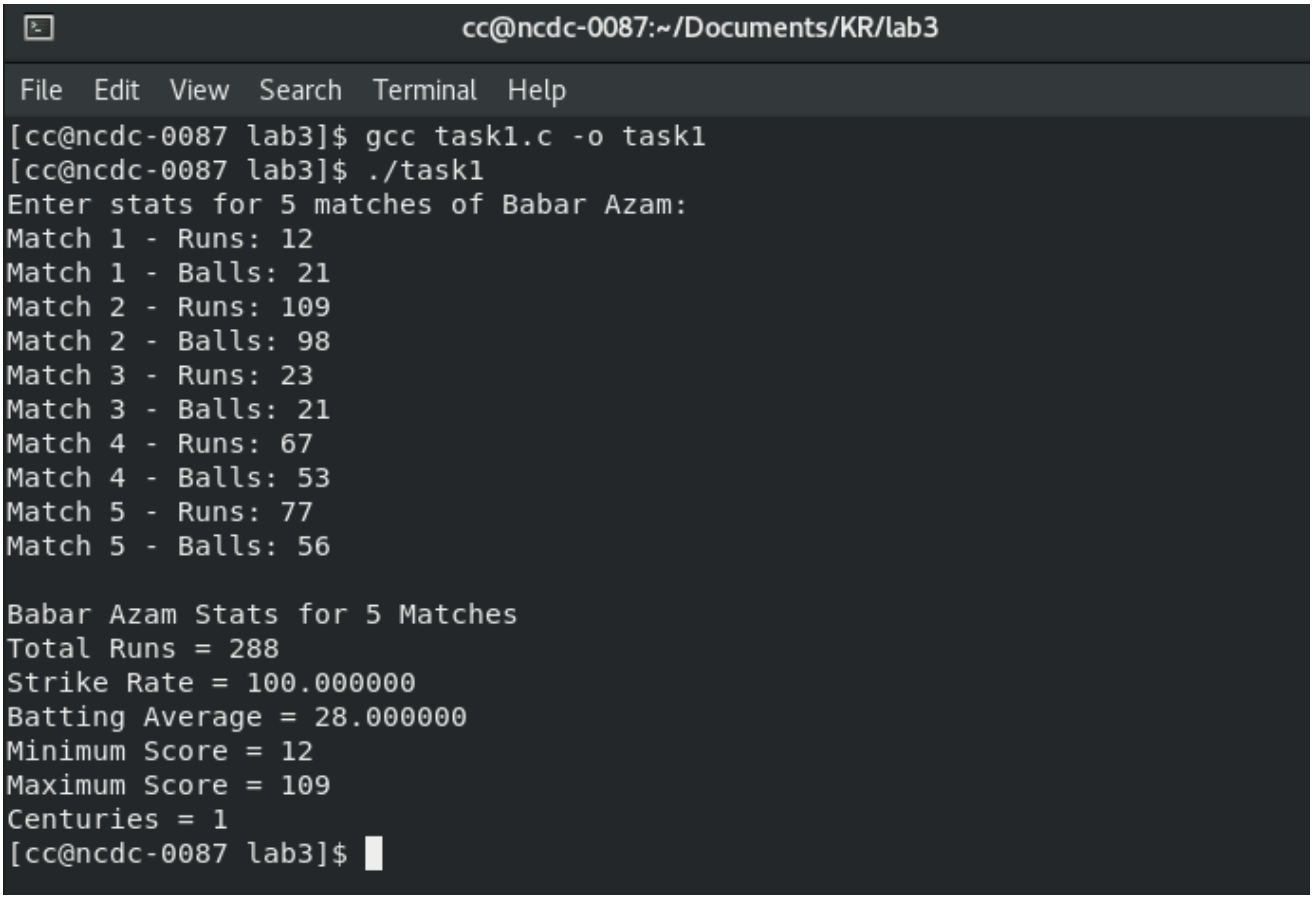
TASK # 01:

FLOW CHART:

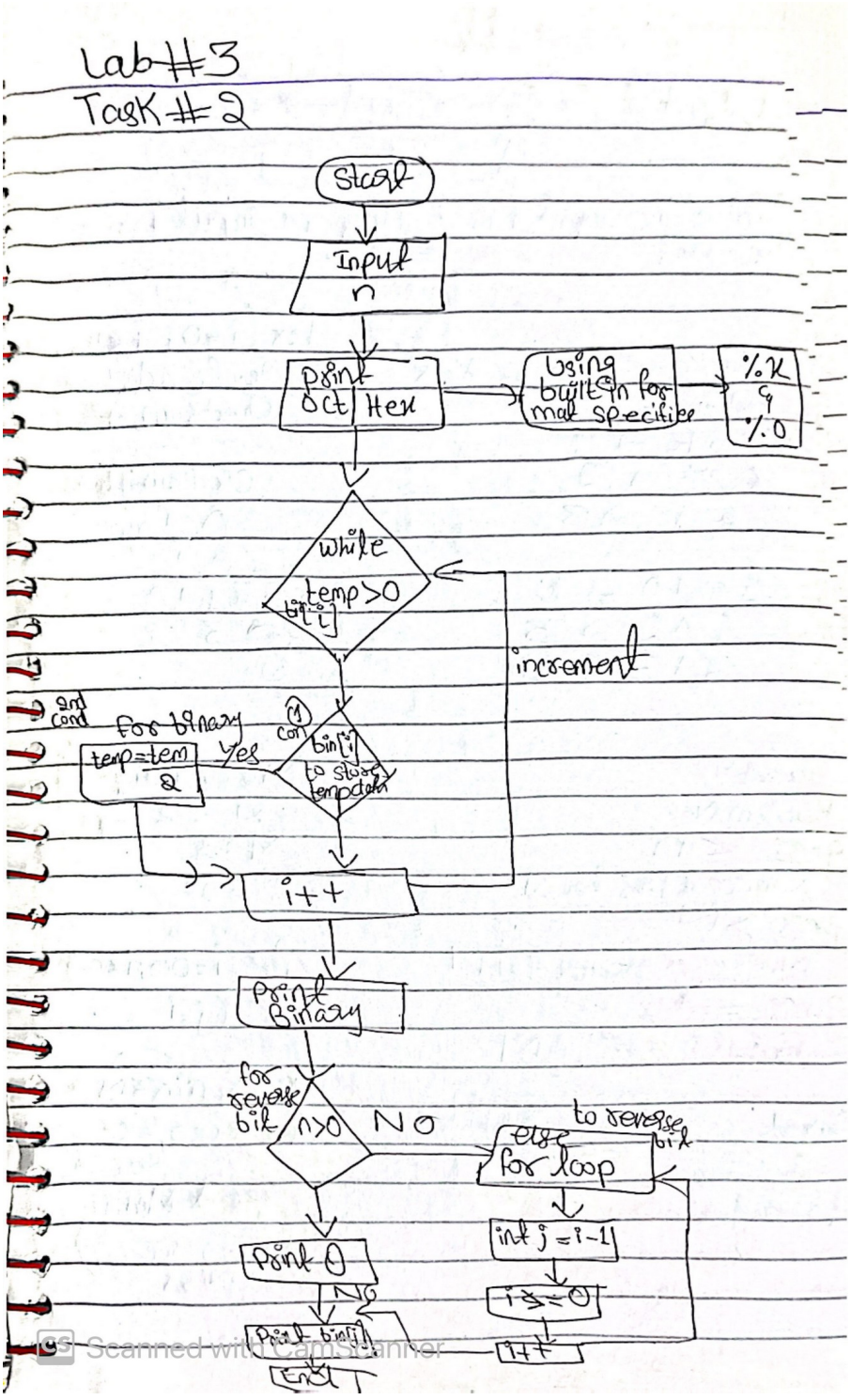


Terminal output:


cc@ncdc-0087:~/Documents/KR/lab3
File Edit View Search Terminal Help
[cc@ncdc-0087 lab3]$ gcc task1.c -o task1
[cc@ncdc-0087 lab3]$ ./task1
Enter stats for 5 matches of Babar Azam:
Match 1 - Runs: 12
Match 1 - Balls: 21
Match 2 - Runs: 109
Match 2 - Balls: 98
Match 3 - Runs: 23
Match 3 - Balls: 21
Match 4 - Runs: 67
Match 4 - Balls: 53
Match 5 - Runs: 77
Match 5 - Balls: 56
Babar Azam Stats for 5 Matches
Total Runs = 288
Strike Rate = 100.000000
Batting Average = 28.000000
Minimum Score = 12
Maximum Score = 109
Centuries = 1
[cc@ncdc-0087 lab3]$

TASK # 02:

Flow Chart:

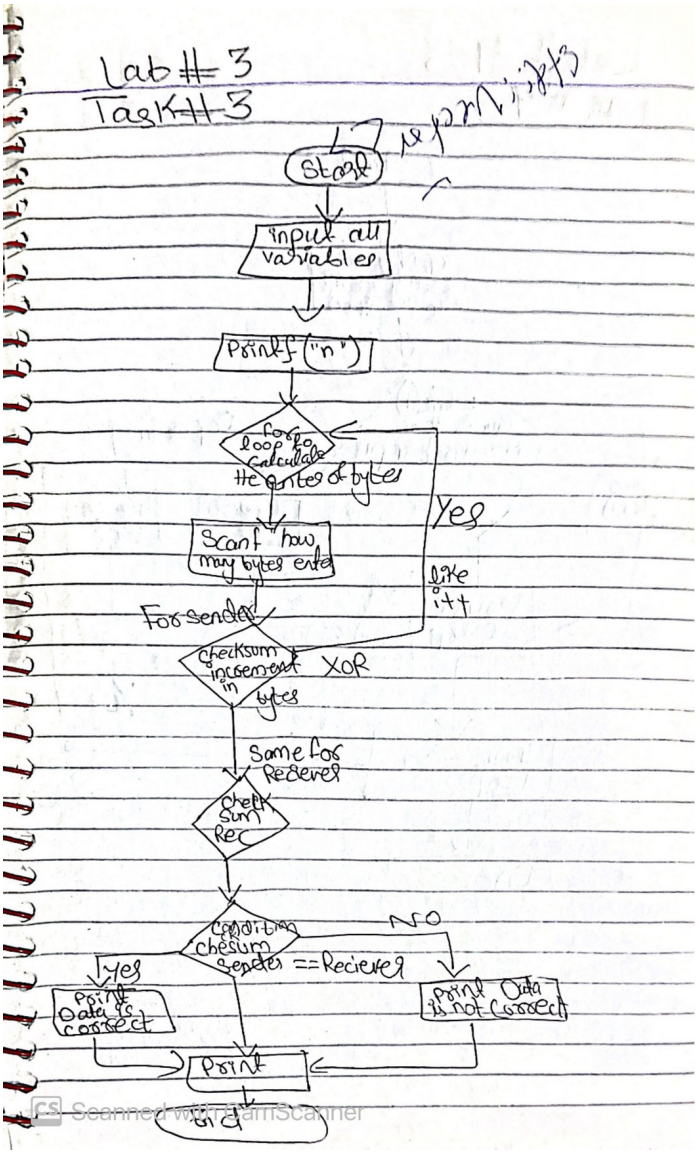


TERMINAL OUTPUT:

```
Output

Enter a decimal number: 16
Octal: 20
Hexadecimal: 10
Binary: 10000


=== Code Execution Successful ===
```

TASK # 03:

Flow Chart:

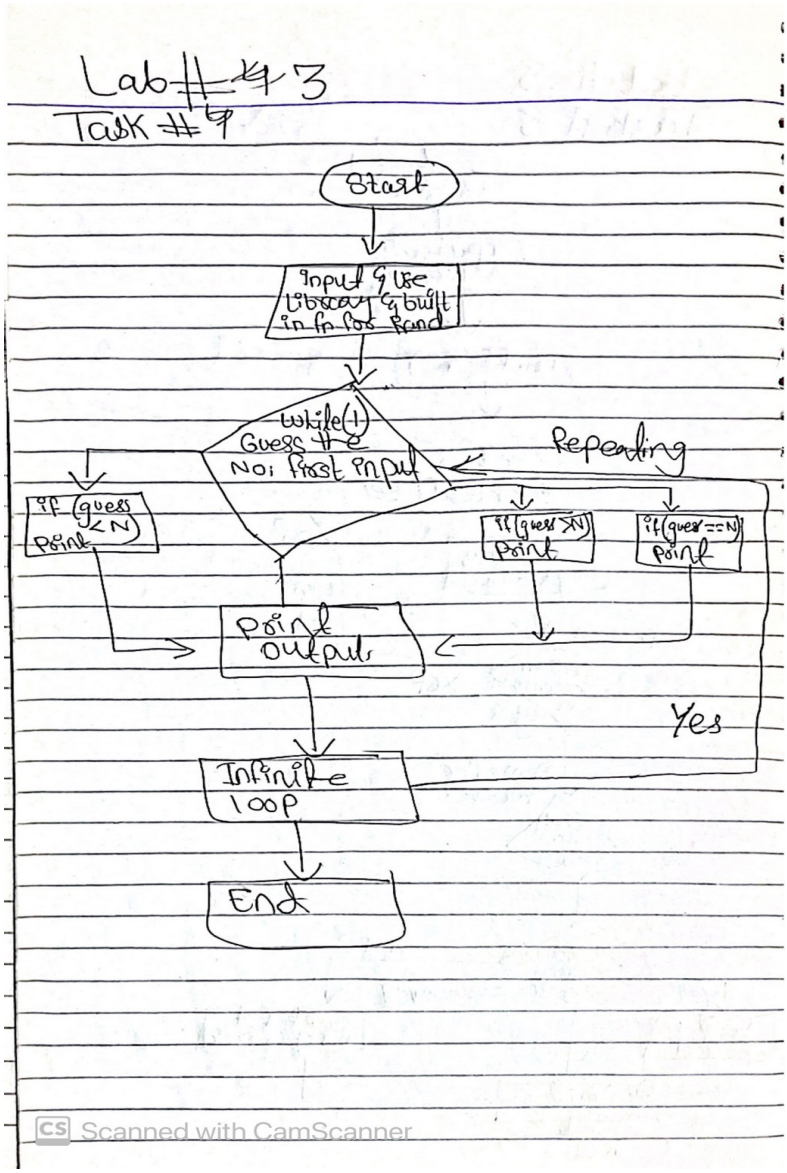


Terminal output:

```
Enter number of bytes: 2
Enter sender bytes one by one:
2
3
Enter receiver bytes one by one:
2
3
Data is Correct


=== Code Execution Successful ===
```

TASK # 04:

Flow Chart:

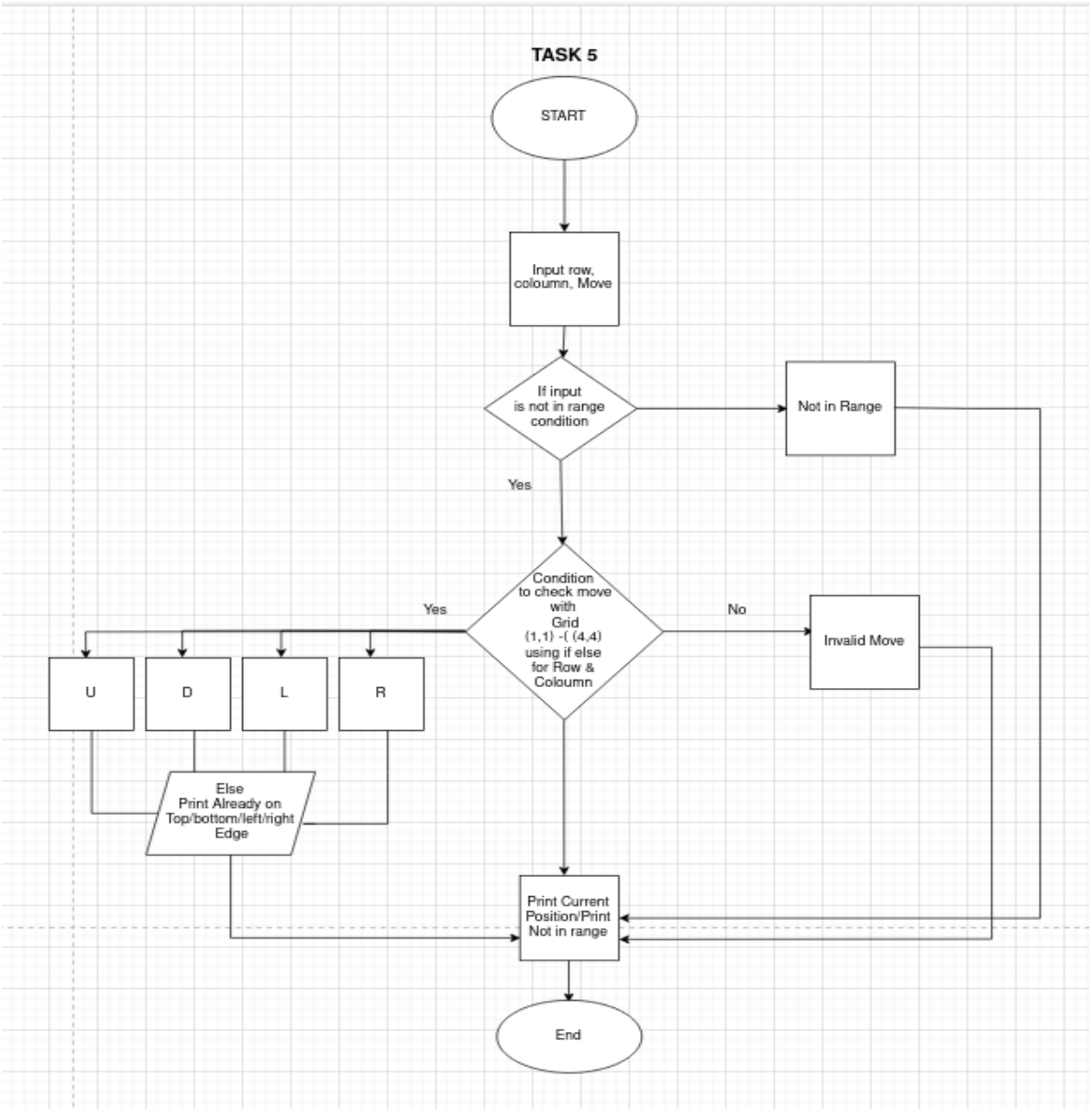


TERMINAL OUTPUT:

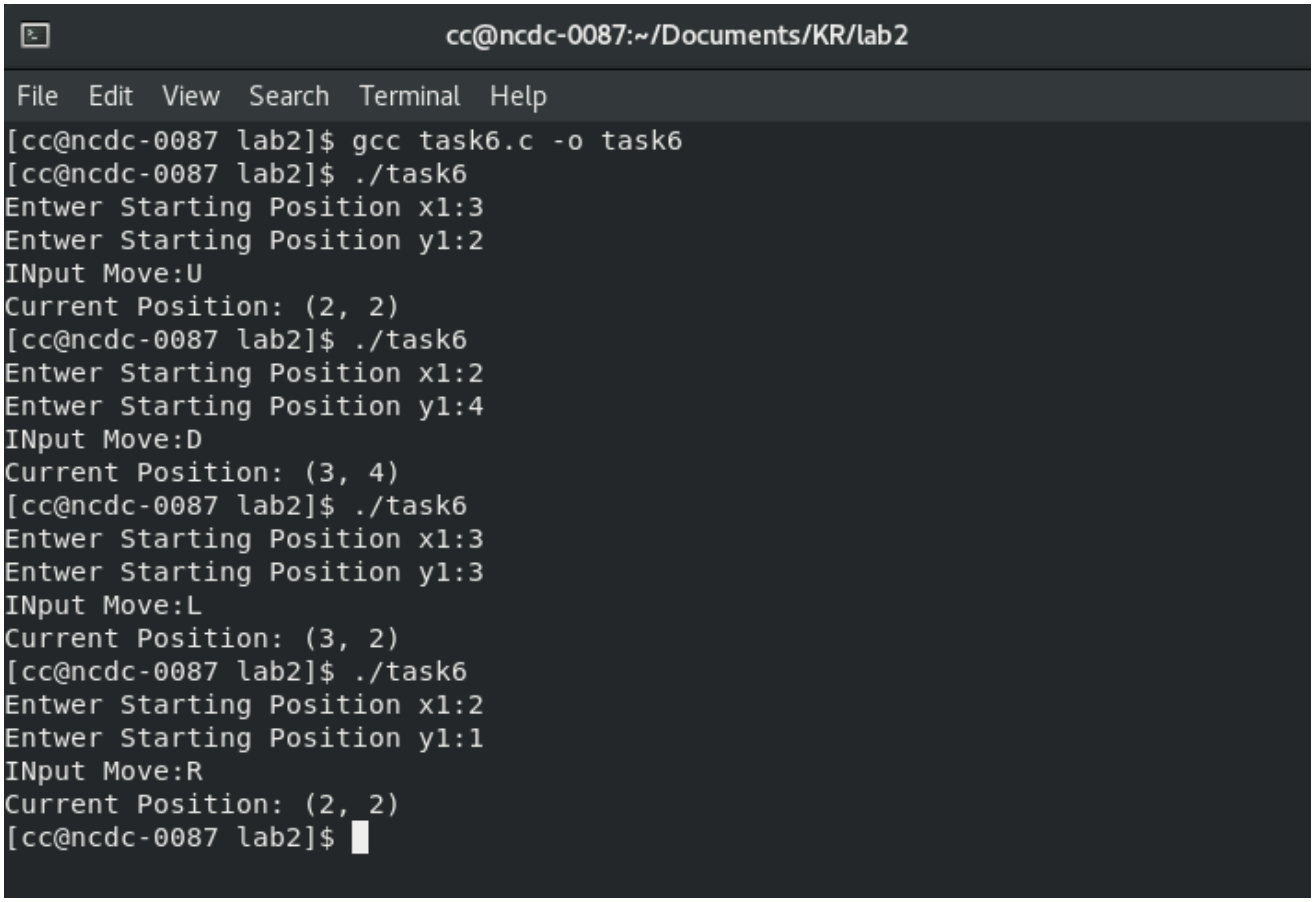
```
Output
Guess the Number:23

Number is Less than N:50
Guess the Number:57

Number is Greater than:50
Guess the Number:50

Guess is Equal to N:50


=== Code Execution Successful ===
```

TASK # 05:

FLOW CHART:

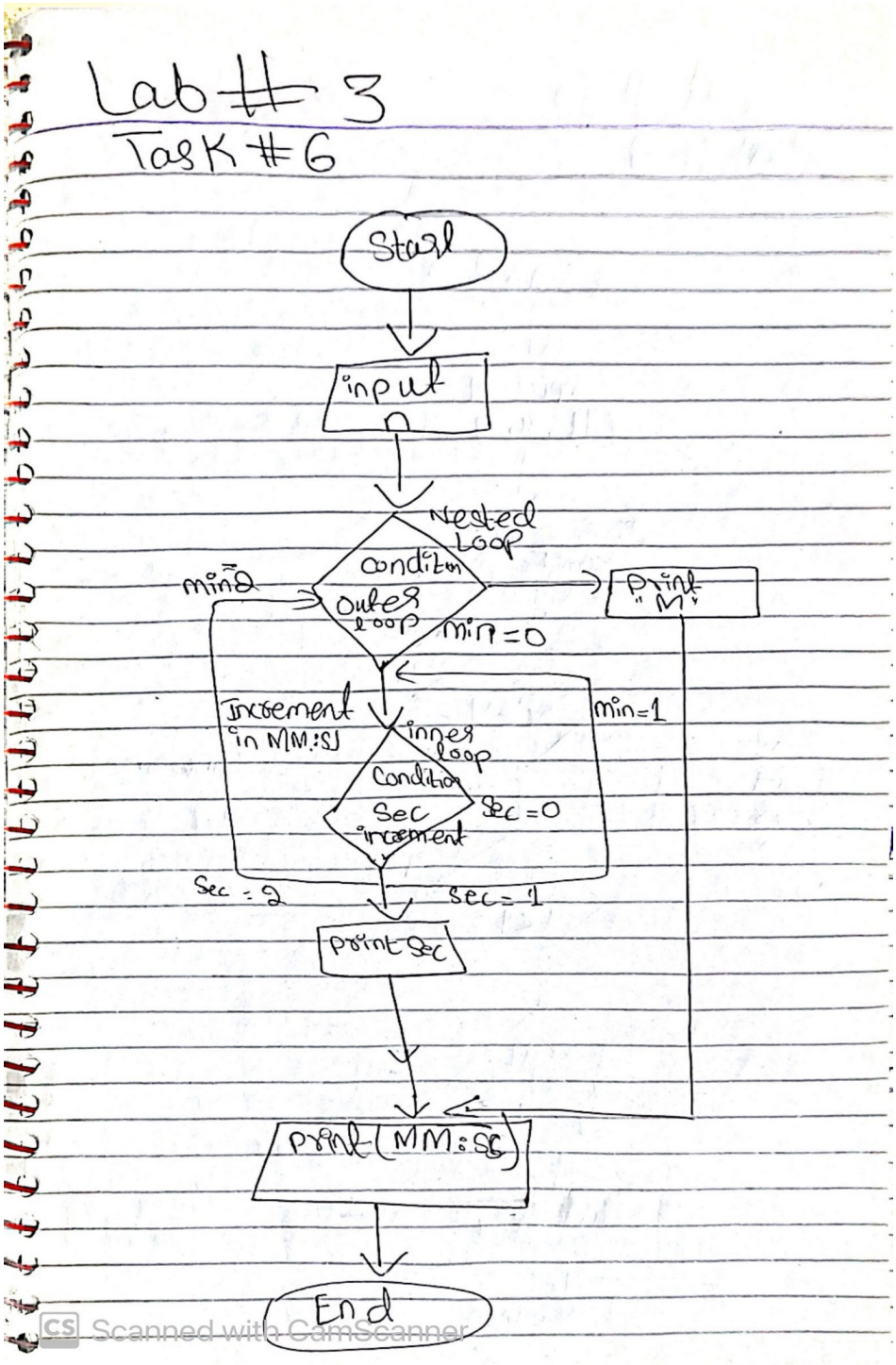


TERMINAL OUTPUT:

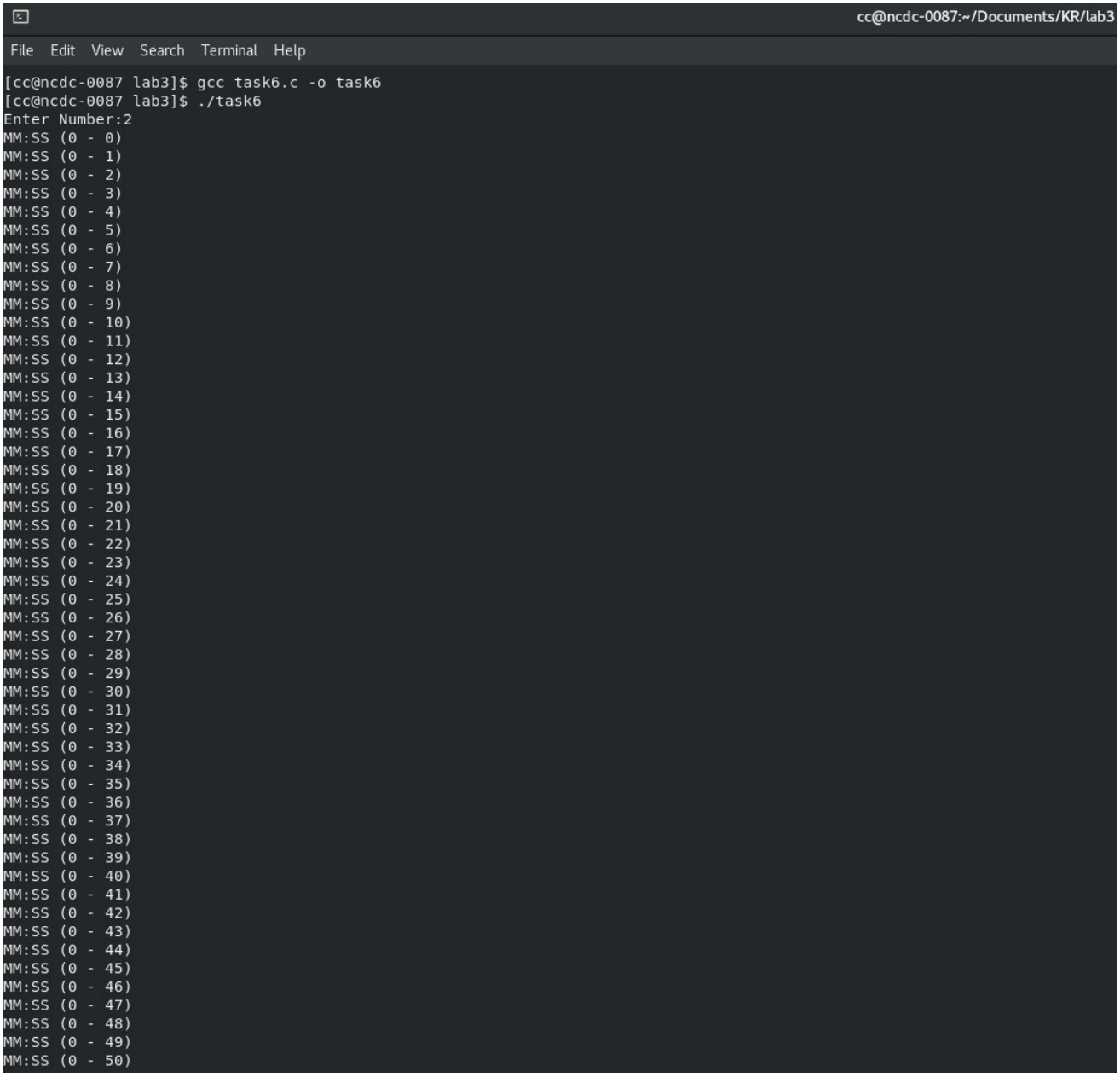


TASK # 06

FLOW CHAR



TERMINAL OUTPUT:


cc@ncdc-0087:~/Documents/KR/lab3
File Edit View Search Terminal Help
[cc@ncdc-0087 lab3]$ gcc task6.c -o task6
[cc@ncdc-0087 lab3]$ ./task6
Enter Number:2
MM:SS (0 - 0)
MM:SS (0 - 1)
MM:SS (0 - 2)
MM:SS (0 - 3)
MM:SS (0 - 4)
MM:SS (0 - 5)
MM:SS (0 - 6)
MM:SS (0 - 7)
MM:SS (0 - 8)
MM:SS (0 - 9)
MM:SS (0 - 10)
MM:SS (0 - 11)
MM:SS (0 - 12)
MM:SS (0 - 13)
MM:SS (0 - 14)
MM:SS (0 - 15)
MM:SS (0 - 16)
MM:SS (0 - 17)
MM:SS (0 - 18)
MM:SS (0 - 19)
MM:SS (0 - 20)
MM:SS (0 - 21)
MM:SS (0 - 22)
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MM:SS (0 - 26)
MM:SS (0 - 27)
MM:SS (0 - 28)
MM:SS (0 - 29)
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MM:SS (0 - 32)
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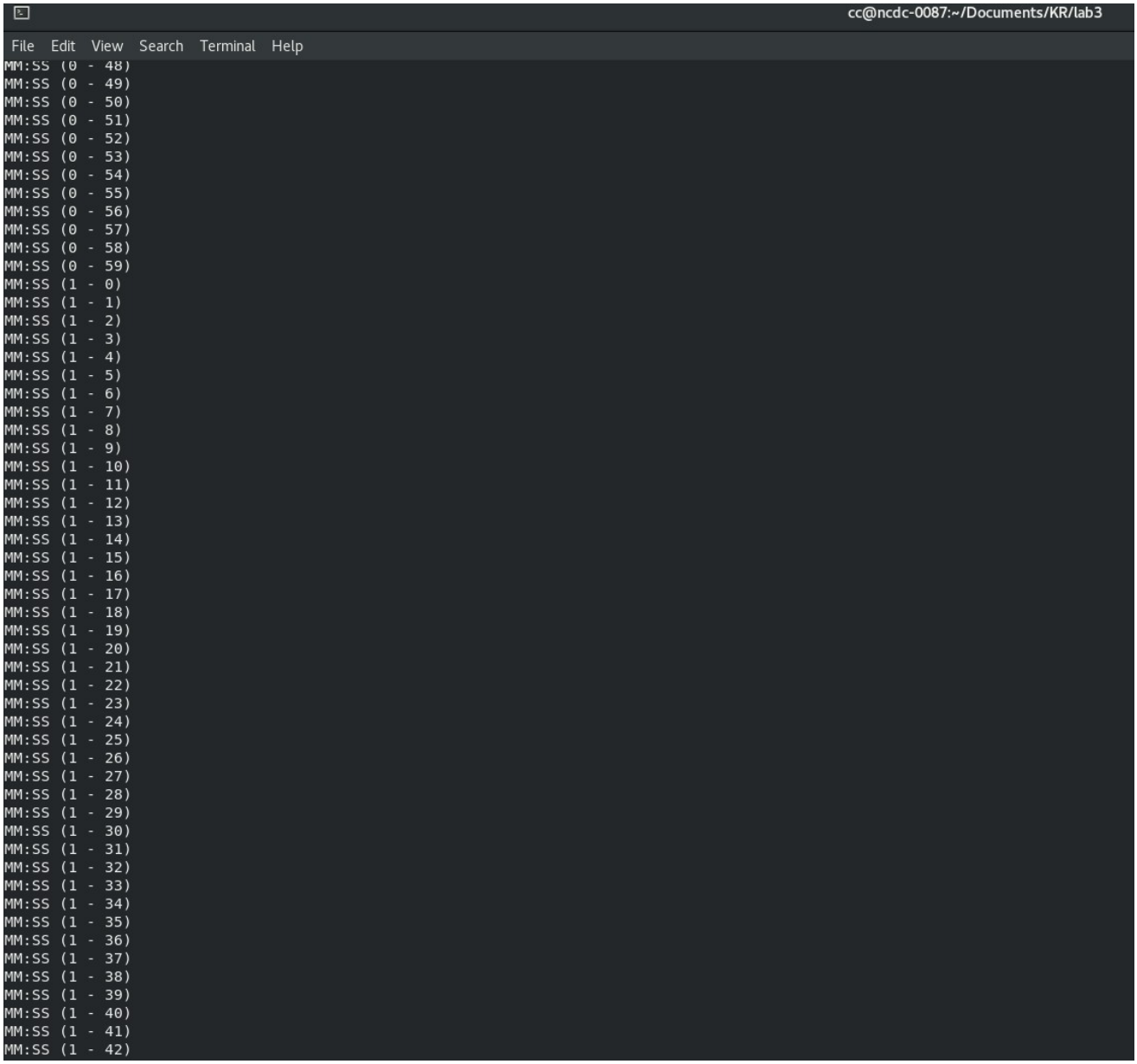
MM:SS (0 - 37)
MM:SS (0 - 38)
MM:SS (0 - 39)
MM:SS (0 - 40)
MM:SS (0 - 41)
MM:SS (0 - 42)
MM:SS (0 - 43)
MM:SS (0 - 44)
MM:SS (0 - 45)
MM:SS (0 - 46)
MM:SS (0 - 47)
MM:SS (0 - 48)
MM:SS (0 - 49)
MM:SS (0 - 50)


cc@ncdc-0087:~/Documents/KR/lab3
File Edit View Search Terminal Help
MM:SS (0 - 48)
MM:SS (0 - 49)
MM:SS (0 - 50)
MM:SS (0 - 51)
MM:SS (0 - 52)
MM:SS (0 - 53)
MM:SS (0 - 54)
MM:SS (0 - 55)
MM:SS (0 - 56)
MM:SS (0 - 57)
MM:SS (0 - 58)
MM:SS (0 - 59)
MM:SS (1 - 0)
MM:SS (1 - 1)
MM:SS (1 - 2)
MM:SS (1 - 3)
MM:SS (1 - 4)
MM:SS (1 - 5)
MM:SS (1 - 6)
MM:SS (1 - 7)
MM:SS (1 - 8)
MM:SS (1 - 9)
MM:SS (1 - 10)
MM:SS (1 - 11)
MM:SS (1 - 12)
MM:SS (1 - 13)
MM:SS (1 - 14)
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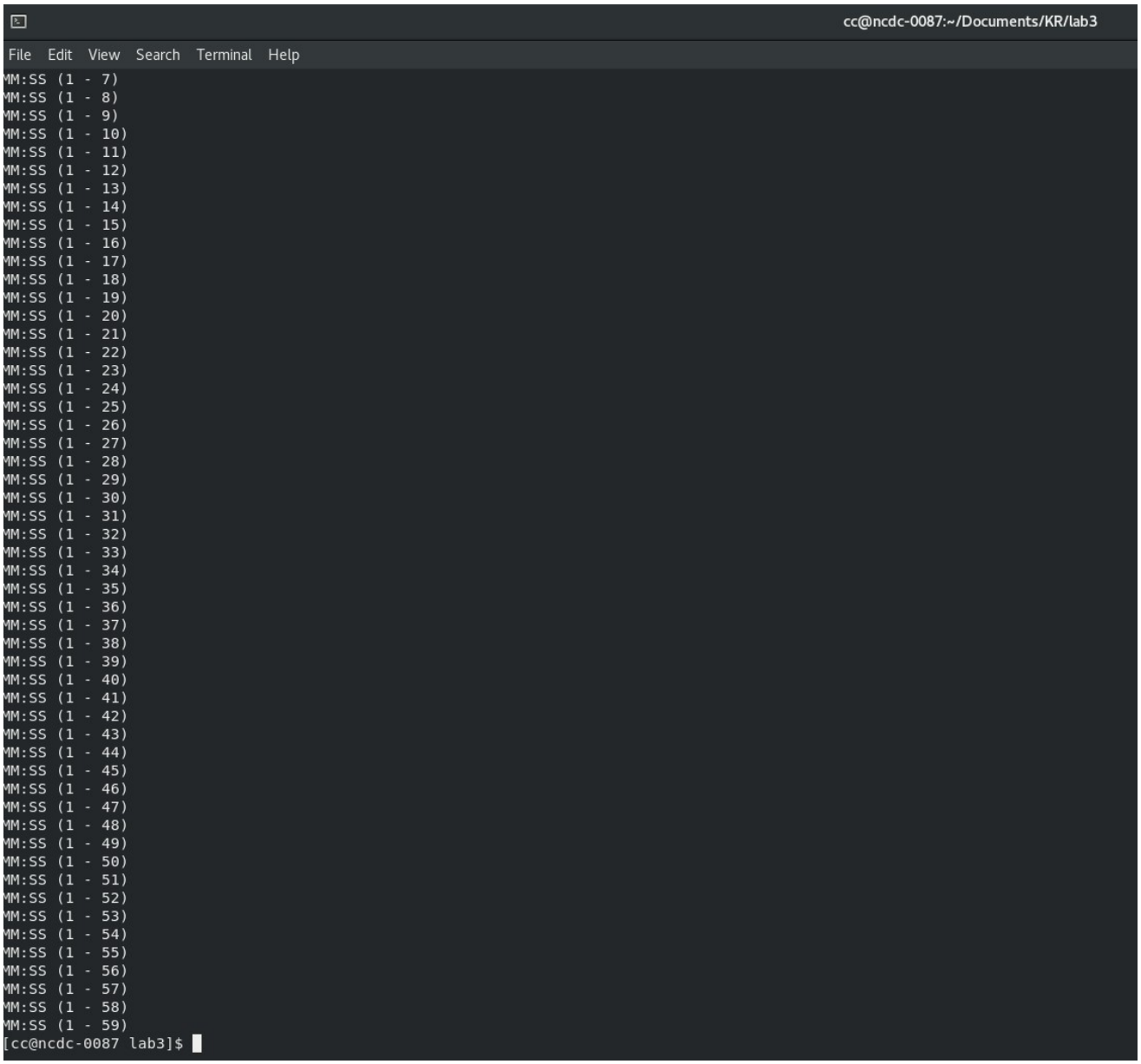
MM:SS (1 - 36)
MM:SS (1 - 37)
MM:SS (1 - 38)
MM:SS (1 - 39)
MM:SS (1 - 40)
MM:SS (1 - 41)
MM:SS (1 - 42)


cc@ncdc-0087:~/Documents/KR/lab3
File Edit View Search Terminal Help
MM:SS (1 - 7)
MM:SS (1 - 8)
MM:SS (1 - 9)
MM:SS (1 - 10)
MM:SS (1 - 11)
MM:SS (1 - 12)
MM:SS (1 - 13)
MM:SS (1 - 14)
MM:SS (1 - 15)
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MM:SS (1 - 19)
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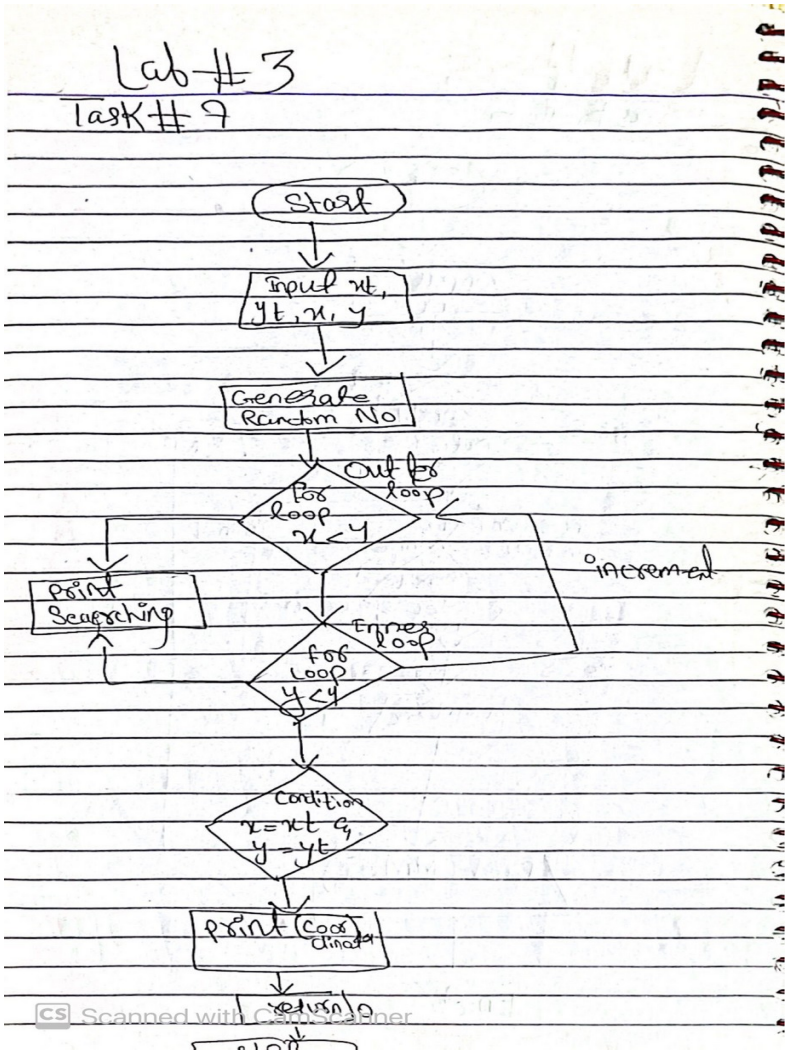
MM:SS (1 - 58)
MM:SS (1 - 59)
[cc@ncdc-0087 lab3]$

TASK # 07

FLOW CHART:



TERMINAL OUTPUT:

```
Searching at (1,1)
Searching at (1,2)
Searching at (1,3)
Searching at (1,4)
Searching at (2,1)
Searching at (2,2)
Searching at (2,3)
Searching at (2,4)
Searching at (3,1)
Hurrah! I have found the hidden treasure at (3,1)


=== Code Execution Successful ===
```