



Digital Design Verification

Assignment # 02

LOOPS

Submitted by:

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Date:

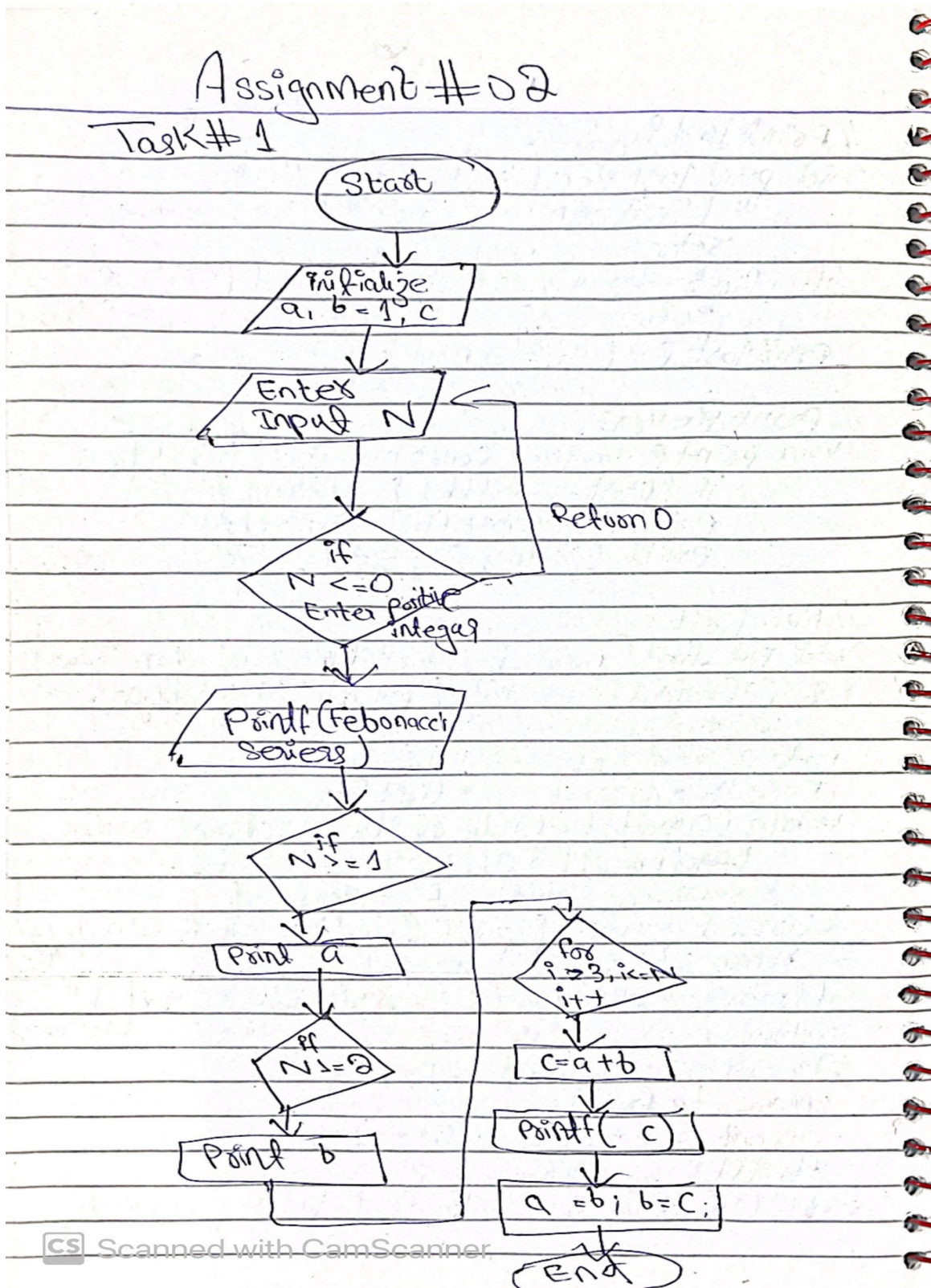
July 25, 2025

NUST Chip Design Centre (NCDC), Islamabad, Pakistan



TASK # 01:

Flow Chart:



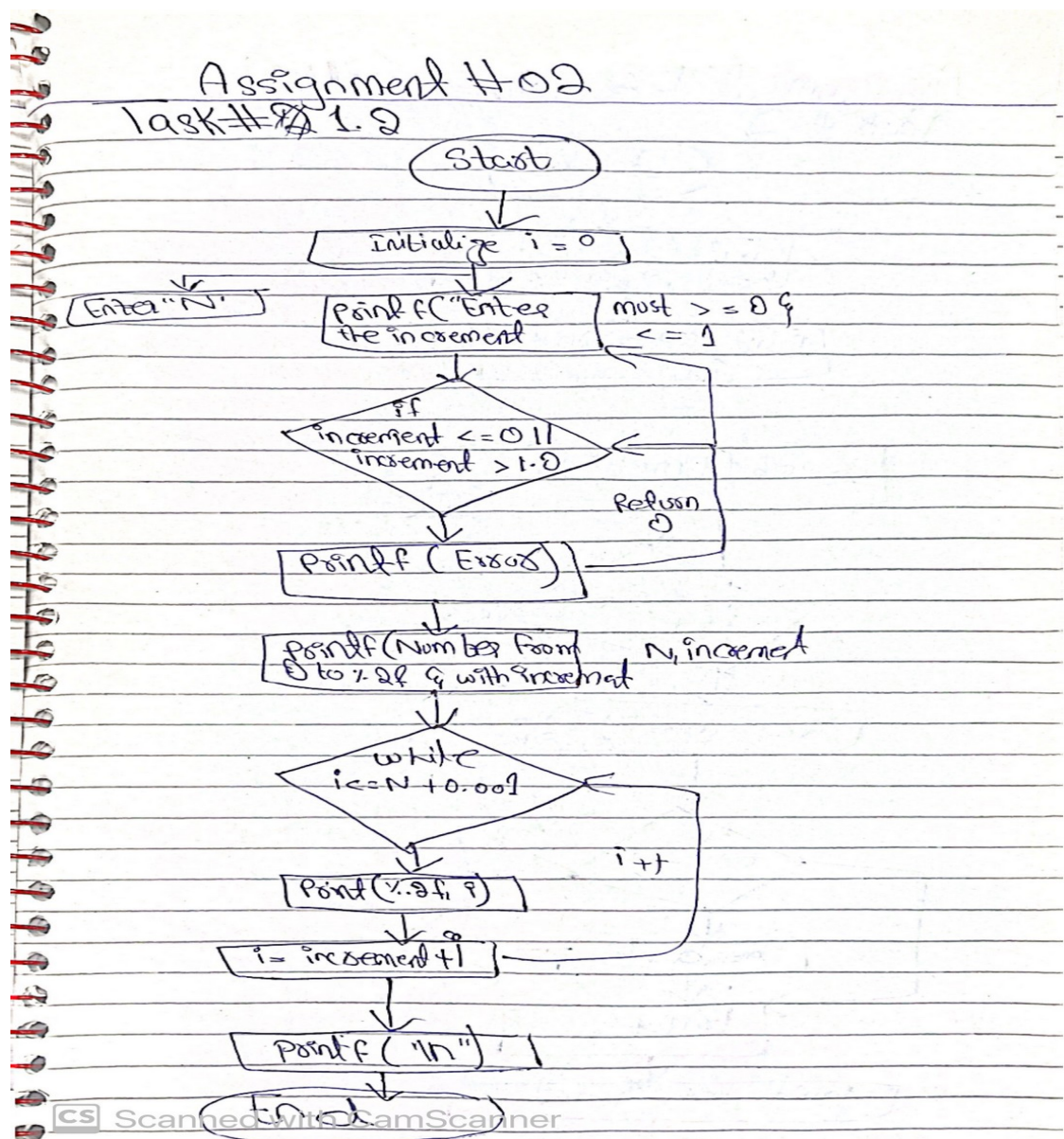


Terminal output:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$ gcc task1.c -o task1
• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$ ./task1
Enter the number of terms: 5
○ Fibonacci Series: 0 1 1 2 3 khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$
```

TASK#1 B

Flow Chart:



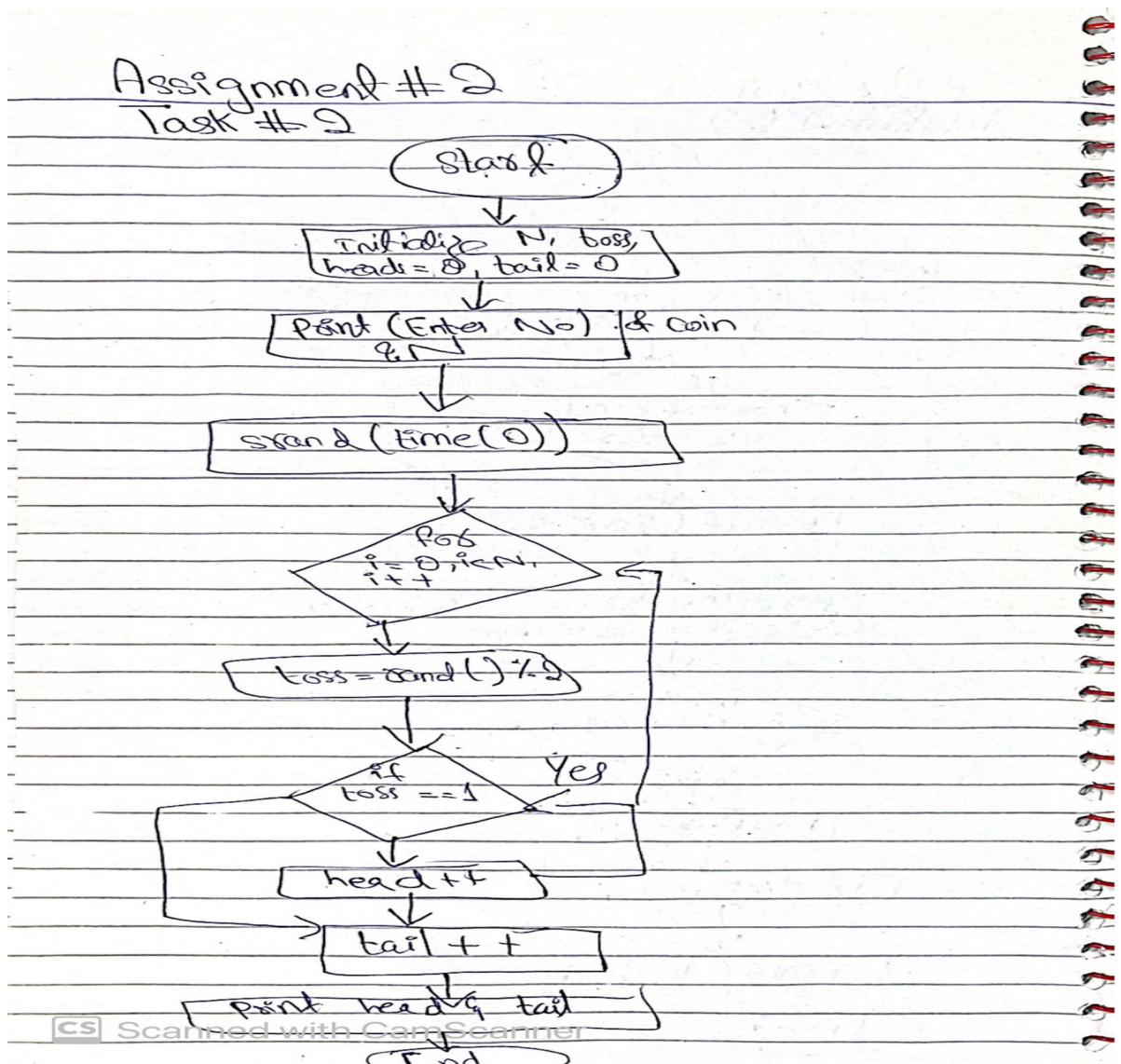


Terminal Output:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$ gcc task1_2.c -o task1_2
• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$ ./task1_2
Enter the limit N: 3
Enter the increment (must be > 0 and <= 1): 0.2
Numbers from 0 to 3.00 with increment 0.20:
0.00 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.20 2.40 2.60 2.80 3.00
• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$
```

TASK # 02:

FlowChart:



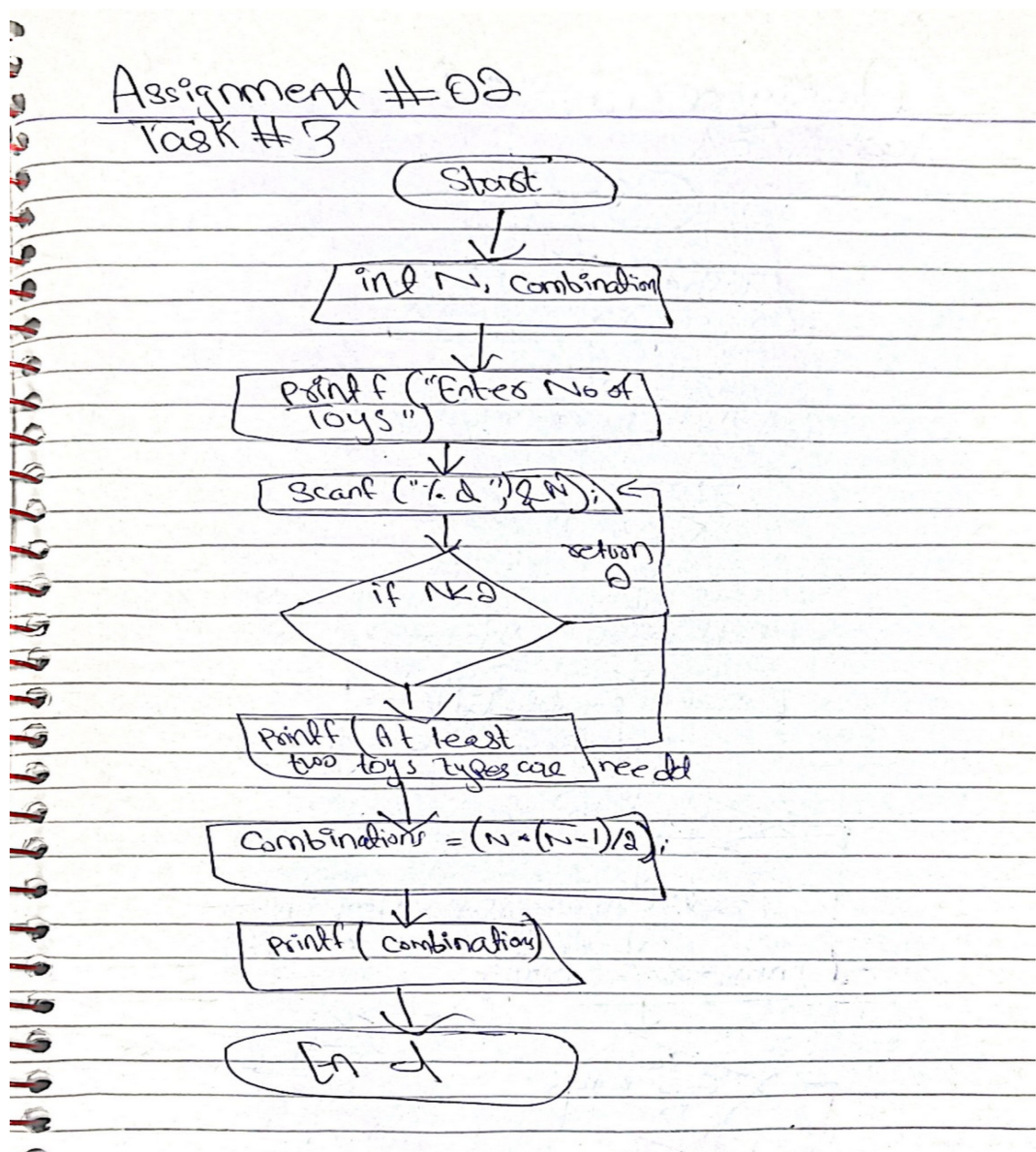
TERMINAL OUTPUT:



```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$ gcc task2.c -o task2
• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$ ./task2
Enter number of coin toss trials: 5
Heads: 2 (40.00%)
Tails: 3 (60.00%)
• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$
```

TASK#03

Flow Chart:





Terminal Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$ gcc task3.c -o task3
• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$ ./task3
  Enter number of toy types: 5
  Number of unique pairs: 10
○ khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#02$ █
```