



Digital Design Verification

Assignment # 03

ARRAYS

Submitted by:

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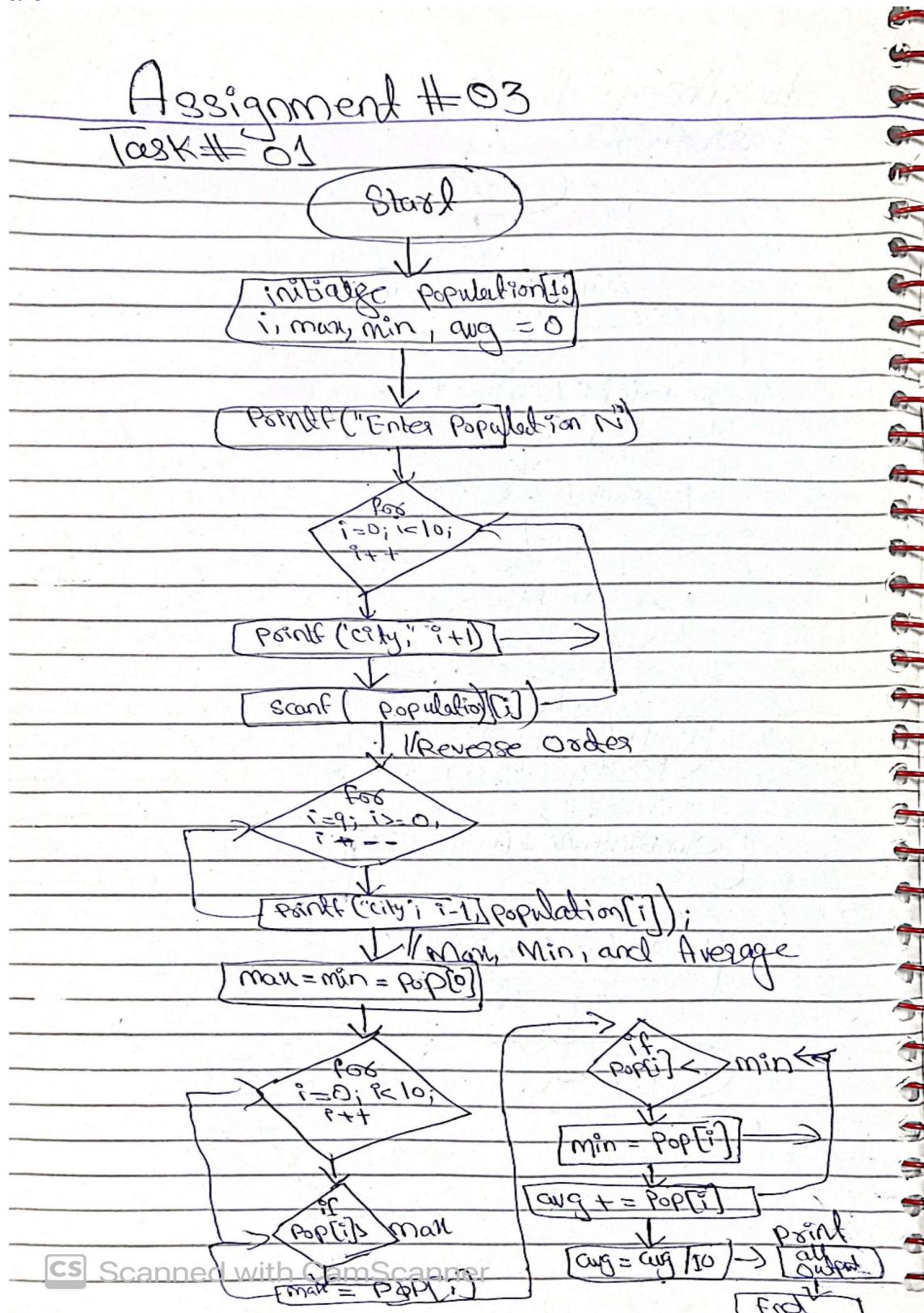
Date:
July 25, 2025

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#03$ gcc task1.c -o task1
● khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#03$ ./task1
Enter population of 10 cities:
City 1: 1000
City 2: 2000
City 3: 3000
City 4: 4000
City 5: 5000
City 6: 6000
City 7: 7000
City 8: 8000
City 9: 9000
City 10: 10000

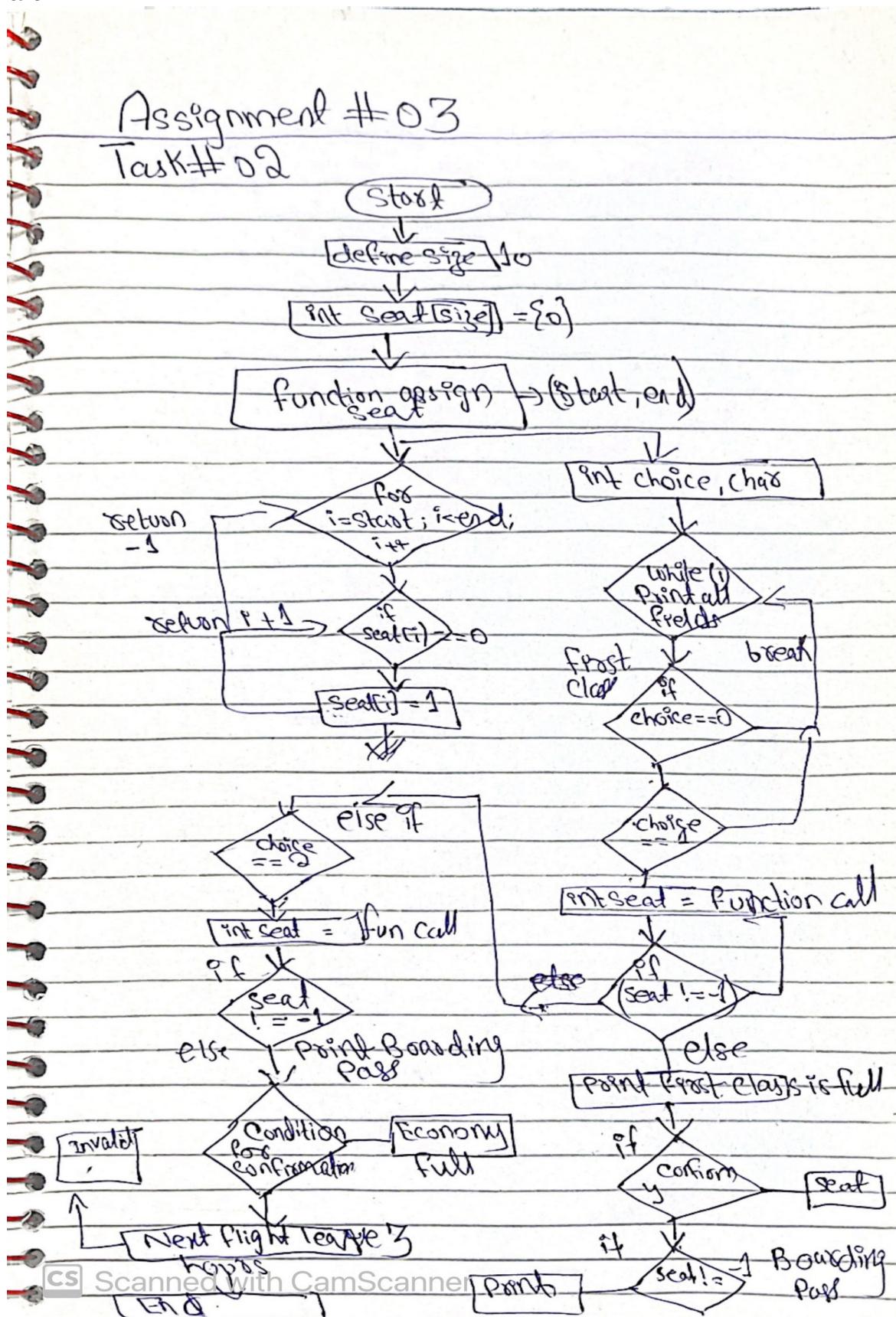
Population in Reverse Order:
City 10: 10000
City 9: 9000
City 8: 8000
City 7: 7000
City 6: 6000
City 5: 5000
City 4: 4000
City 3: 3000
City 2: 2000
City 1: 1000

Maximum Population: 10000
Minimum Population: 1000
Average Population: 5500.00
○ khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#03$ □
```



TASK # 02:

FlowChart:





TERMINAL OUTPUT:

```
● khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#03$ gcc task2.c -o task2
○ khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#03$ ./task2

--- Airline Reservation Menu ---
Please type 1 for "First Class"
Please type 2 for "Economy"
Enter your choice (or 0 to exit): 1
Boarding Pass: Seat #1 (First Class)

--- Airline Reservation Menu ---
Please type 1 for "First Class"
Please type 2 for "Economy"
Enter your choice (or 0 to exit): 1
Boarding Pass: Seat #2 (First Class)

--- Airline Reservation Menu ---
Please type 1 for "First Class"
Please type 2 for "Economy"
Enter your choice (or 0 to exit): 2
Boarding Pass: Seat #6 (Economy)

--- Airline Reservation Menu ---
Please type 1 for "First Class"
Please type 2 for "Economy"
Enter your choice (or 0 to exit): 1
Boarding Pass: Seat #3 (First Class)

--- Airline Reservation Menu ---
Please type 1 for "First Class"
Please type 2 for "Economy"
Enter your choice (or 0 to exit): 2
Boarding Pass: Seat #7 (Economy)

--- Airline Reservation Menu ---
Please type 1 for "First Class"
Please type 2 for "Economy"
Enter your choice (or 0 to exit): 1
Boarding Pass: Seat #4 (First Class)

--- Airline Reservation Menu ---
Please type 1 for "First Class"
Please type 2 for "Economy"
Enter your choice (or 0 to exit): 2
Boarding Pass: Seat #8 (Economy)

--- Airline Reservation Menu ---
Please type 1 for "First Class"
Please type 2 for "Economy"
Enter your choice (or 0 to exit): 1
Boarding Pass: Seat #5 (First Class)

--- Airline Reservation Menu ---
Please type 1 for "First Class"
Please type 2 for "Economy"
Enter your choice (or 0 to exit): 2
Boarding Pass: Seat #9 (Economy)
```



```
--- Airline Reservation Menu ---  
Please type 1 for "First Class"  
Please type 2 for "Economy"  
Enter your choice (or 0 to exit): 2  
Boarding Pass: Seat #9 (Economy)

--- Airline Reservation Menu ---  
Please type 1 for "First Class"  
Please type 2 for "Economy"  
Enter your choice (or 0 to exit): 1  
First Class is full. Is Economy acceptable? (y/n): y  
Boarding Pass: Seat #10 (Economy)

--- Airline Reservation Menu ---  
Please type 1 for "First Class"  
Please type 2 for "Economy"  
Enter your choice (or 0 to exit): 1  
First Class is full. Is Economy acceptable? (y/n): y  
Next flight leaves in 3 hours.

--- Airline Reservation Menu ---  
Please type 1 for "First Class"  
Please type 2 for "Economy"  
Enter your choice (or 0 to exit): 0  
Exiting reservation system.
```

khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/Assignment#03\$ █