



Digital Design Verification

Assignment # 01

Inheritance & Virtual Functions in C++

Submitted by:

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Date:

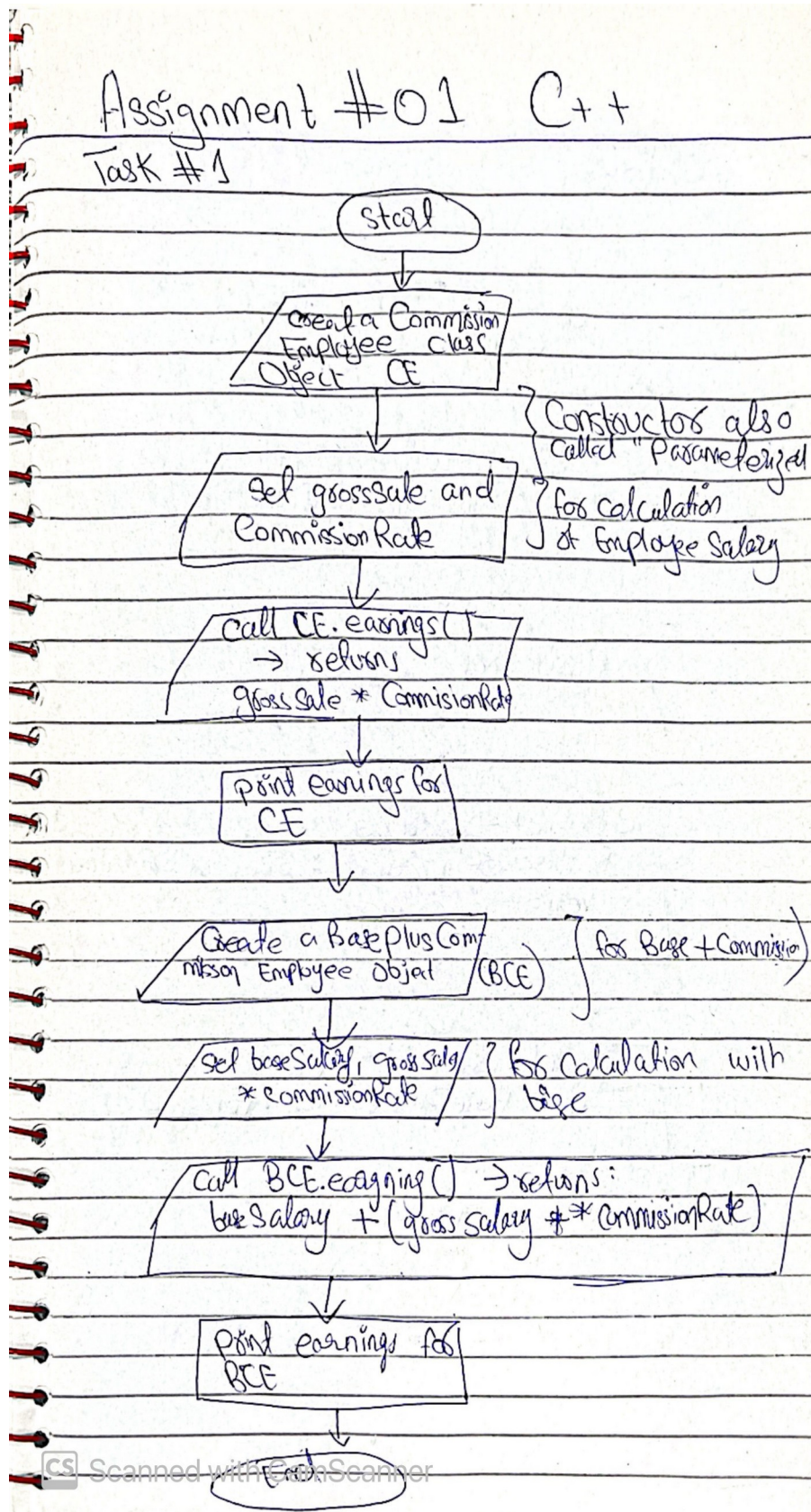
July 24, 2025

NUST Chip Design Centre (NCDC), Islamabad, Pakistan



TASK # 01:

Flow Chart:





Terminal output:

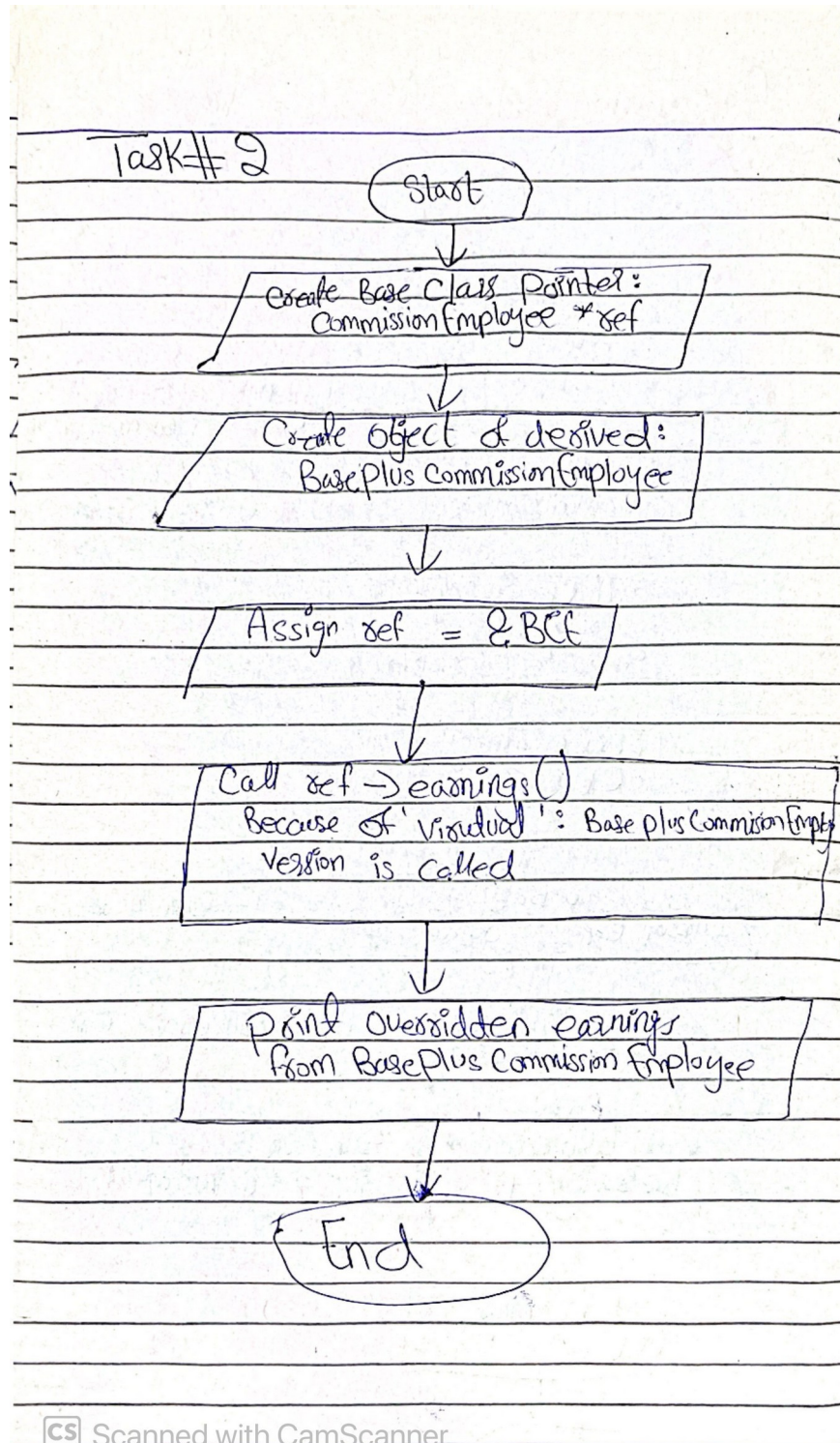
```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment#01$ g++ task1.cpp -o task1
• khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment#01$ ./task1
Commission Employee: Khalil Rehman
SSN: 123-45-6789
Gross Sales: 10000
Commission Rate: 0.06
Earnings: 600
-----
Base + Commission Employee: Ali Ahmed
SSN: 987-65-4321
Gross Sales: 8000
Commission Rate: 0.05
Base Salary: 2000
Earnings: 2400
-----
○ khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment#01$
```




TASK # 02:

Flow Chart:





TERMINAL OUTPUT:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment#01$ g++ task2.cpp -o task2
^[[khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment#01$ ./task2
Commission Employee: Khalil Rehman
SSN: 123-45-6789
Gross Sales: 10000
Commission Rate: 0.06
Earnings: 600
-----
Base + Commission Employee: Ali Ahmed
SSN: 987-65-4321
Gross Sales: 8000
Commission Rate: 0.05
Base Salary: 2000
Earnings: 2400
-----
Calling earnings() using base class reference: 2400
khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment#01$
```