



Digital Design Verification

Assignment # 02

**Basic Concepts in C++
Std vector & This pointer**

Submitted by:

Name:	Khalil Rehman
Instructor:	Hira Sohail

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NUST Chip Design Centre (NCDC), Islamabad, Pakistan



TASK # 01:

Terminal output:

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS

● khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment#02$ g++ task1.cpp -o task1
● ^[[Akhilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment#02$ ./task1

Student Record Management System
1. Add Student
2. Display All Students
3. Search Student by Roll Number
4. Update Marks
5. Sort Students by Average Marks
6. Exit
Enter your choice: 1
Enter student name: Khalil Rehman
Enter roll number: 1234
Enter number of subjects: 3
Enter marks for subject 1: 89
Enter marks for subject 2: 90
Enter marks for subject 3: 78
Student added successfully.

Student Record Management System
1. Add Student
2. Display All Students
3. Search Student by Roll Number
4. Update Marks
5. Sort Students by Average Marks
6. Exit
Enter your choice: 1
Enter student name: Ali
Enter roll number: 4321
Enter number of subjects: 2
Enter marks for subject 1: 99
Enter marks for subject 2: 98
Student added successfully.

Student Record Management System
1. Add Student
2. Display All Students
3. Search Student by Roll Number
4. Update Marks
5. Sort Students by Average Marks
6. Exit
Enter your choice: 2
--- Student 1 ---
Name: Khalil Rehman
Roll Number: 1234
Marks: 89 90 78
Average Marks: 85.6667

--- Student 2 ---
Name: Ali
Roll Number: 4321
Marks: 99 98
Average Marks: 98.5
Manage - New Code update available.
Student Record Management System
```



PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
Student Record Management System
1. Add Student
2. Display All Students
3. Search Student by Roll Number
4. Update Marks
5. Sort Students by Average Marks
6. Exit
Enter your choice: 3
Enter roll number to search: 4321
```

```
Student found:
Name: Ali
Roll Number: 4321
Marks: 99 98
Average Marks: 98.5
```

```
Student Record Management System
1. Add Student
2. Display All Students
3. Search Student by Roll Number
4. Update Marks
5. Sort Students by Average Marks
6. Exit
Enter your choice: 4
Enter roll number to update marks: 1234
Enter new marks:
Enter student name: khalil rehman
Enter roll number: 1234
Enter number of subjects: 2
Enter marks for subject 1: 100
Enter marks for subject 2: 90
Student marks updated.
```

```
Student Record Management System
1. Add Student
2. Display All Students
3. Search Student by Roll Number
4. Update Marks
5. Sort Students by Average Marks
6. Exit
Enter your choice: 5
Students sorted by average marks.
```

```
Student Record Management System
1. Add Student
2. Display All Students
3. Search Student by Roll Number
4. Update Marks
5. Sort Students by Average Marks
6. Exit
```

Accounts your choice: 2

```
--- Student 1 ---
Name: Ali
Roll Number: 4321
```



```
Student Record Management System
1. Add Student
2. Display All Students
3. Search Student by Roll Number
4. Update Marks
5. Sort Students by Average Marks
6. Exit
Enter your choice: 2
```

```
--- Student 1 ---
```

```
Name: Ali
Roll Number: 4321
Marks: 99 98
Average Marks: 98.5
```

```
--- Student 2 ---
```

```
Name: khalil rehman
Roll Number: 1234
Marks: 100 90
Average Marks: 95
```

```
Student Record Management System
```

```
1. Add Student
2. Display All Students
3. Search Student by Roll Number
4. Update Marks
5. Sort Students by Average Marks
6. Exit
```

```
Enter your choice: 6
```

```
Exiting program.
```

```
○ khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment
```



TASK # 02:

TERMINAL OUTPUT:

```
PROBLEMS    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS

● khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment#02$ g++ task2.cpp -o task2
● khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment#02$ ./task2
Enter account holder name: khalil rehman
Enter initial balance: 5000
Depositing $500...
Withdrawing $300...

Account Holder: khalil rehman
Current Balance: $5200
○ khalilrehman@khalilrehman-ThinkPad-T14-Gen-1:~/Documents/C++/Assignment#02$ █
```