

OOPs lab Exercise-3 on 05/02/26

Observation Questions:

1. Create class called **student** whose data members are: name(String), Regno(int), 5 subjects marks(float array) and total(float) and result(char). Write member functions for the following:
 - a) get the details of a student
 - b) display the details of a student
 - c) calculate the total marks of a student
 - d) compute the result of a student(if all the subjects marks are above 50, then he will be "pass" else "fail")write main function to test the above functions.
2. Create class called **Product** whose data members are: pid(int), pname(string), sale quantity(int), stock quantity(int) . Write member functions for the following:
 - a) get the details of a Product
 - b) display the details of a Product
 - c) Update the stock quantity based on sale quantity
 - d) increment(int n)- will increment the stock quantity when the admin want to increase the quantity
 - e) decrement(int n) -will decrement the stock quantity when the admin want to decrease the quantity

The increment and decrement functions are to be protected from outside access.
write main function to test the above functions.

Execution:

1. Create class called LibraryMember whose data members are: name(String), membershipno(int), membershipfee(double) and numberOfBooks(int).

Include the following methods:

```
void initialize()-to initialize numberOfBooks to 0
void get()
void disp()
void borrow(int n) that will increment the number of books when books issued.
Ensure that any time the number of books borrowed cannot exceed five.
void return(int n) that will decrement the number of books when returned.
```

spot:

- 1) create a class called **line** with 4 attributes x1,y1,x2,y2:
write functions for the following
get()
disp()
distance()- compute the distance of the line
contains()-check whether the line is inside the boundary.