Lap2

1) **Take a grade from user from (0 : 100) and print**
   Excellent ➔ 90 : 100. Very Good ➔ 80 : 90.
   Good ➔ 65 : 80. Pass ➔ 50 : 65.
   Fail ➔ Less Than 50.

2) **Take a number from user and print if Even OR Odd.**
3) **Take a number from user and get Factorial :- (5 ➔5*4*3*2).**
4) **Take 2 number from user and perform mathematical operation on them (+ , - , * , /) . (/) ➔ cannot divide by zero.**
5) **Take a number from user and check if prime number or not.**
6) **Take 5 number from user and get sum of 5 numbers.**

Lap3

1) **Menu (Loop) :-**
   print menu to user (New , Display , Exit). And user can enter char if user enter (n,N || d ,D) :- show the menu again , if (e,E)➔close the menu, if another char print (Invalid choice).
2) **Take a number of element of array from user , take the elements of this array , get (Min , Max , Sum).**

⇨ **Take Number from user and search about it if found in any index of array or not found.**

3) **Create Method calc the factorial of number , take a number from user and use method to calc Factorial of this number.**
4) **Create method calc the power of two numbers , take two numbers from user and use method ➔ (2^3) = 8.**
5) **Create method check if number is prime or not prime number , take a number from user and use method to check if prime or not.**

6) **Create methods to count number of prime numbers**
   number user entered in program may be 10
   count the prime numbers from 10 to 2(less than 10).
   for Example (10) prime numbers less than 10(2 , 3 , 5 , 7) count :4.
7) **You have an elements of array and need to get the Max distance between any to prime number.**

Lap4

1) **Create Method to Swap values between two numbers ➔ x = 10 , y = 20**

Get x = 20 and y =10.

2) **Create Method and use an array as a parameter in this Method.**
3) **Create Class Employee(id ,name ,age ,salary) use Getter & Setter**
   age by default =30 , salary (if <6000) salary 6000. And print Data of Employee.
4) **Create Class Bank Account (id, name ,balance) , Create Two Method Deposit & Withdraw.**
5) **Create Class Complex Number (4+5j) using Getter & Setter and print data.**

Lap5&6&7

1) **Use Class Complex as a struct.**
2) **Class Complex Number get Count of object & use operator overloading .**
3) **Fraction Number use operating overloading and simplify the result.**
4) **Class Person (id , name , age). Employee : Person(Salary ➔ 6000)**

Student : Person (grade ➔60).and use override on method print .
person p1 = new (employee ➔ create object employee , student ➔ create object student).

5) **Create classes (shape , rectangle , triangle , square , circle) use inheritance and override to CalcArea() of all of this Shapes.**
6) **Use Singleton design pattern ➔ Create one only object from the class.**
7) **Class Duration (int h ,int m ,int s) , use operator overloading of 2 durations and when the number of minute <60 Calc it in Hour and the same of second .(1h: 75m:10s)➔(2h : 15 m : 10s).**
(2h:10m:65s)➔(2h : 11m : 5s).and print the duration.