Object Oriented Programing

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Q1. How to check Even and Odd numbers in java using object oriented approach?

The question is how to check even and odd number via Java. In this program the user inter any integer number as input and then program proceed the number and then finally give output. The process of this program is discussed below that how to check both even and odd numbers.

- First step we have integer number "n" having datatype of integer.

   Int n;

- Second step is taking input/scan from the user.

   Scanner s = new Scanner (System)

Third step condition is applied to check whether the input number which is divided by 2 having reminder 0 are not. (If (n % 2 == 0)) if the reminder is equal to 0 then output should be even otherwise odd.

Q2. How to add 2 complex numbers in java using object oriented approach?

This program is about how to add complex numbers using Object oriented programing in java. First of all we need a class as I declared with name of Complex. After that two data items should declared two store real and imaginary numbers. Now method or constructor can be declared to store passed value from objects and for further process. Inside the constructor the value passed from the object should assign to the original data items of the class.

After word, A method is needed to calculate these complex number but make sure this method is defined having the datatype of the class complex and the in the heading of method two complex type objects are required and inside the body a temporary (temp) object as well. So the work of temp object is to store the calculated result of two real values in a single variable, same as another variable of tempimg will store calculated result of imaginary. Both the temporary results will return via this method.

The next method is made up to display real and imaginary as output. The last method is main method. Inside the main method the first object needed and during declaration of this object two values(3,2) are passed to constructor and same as for the second object when declared its passed the values(9,5).

Finally the calculation method is called which return the value and then display method is called, so this is the whole explanation of the above question.

Q3. How to check Leap year in java using object oriented approach?

Class for this program is declared first. Inside the class value is taken from the user and then condition is applied to check whether variable of year is not equal to zero if(year!=0),now nested condition if(year%400==0) is applied to make sure that Year variable when divide on 400 should has reminder of zero. If the reminder is 0 then the year is leap year.

Another condition of else if is applied to check year/100 has reminder 0, if it is equal to zero then the year is not leap year, inside the else if condition and if condition if(year%4==0) is applied If it is true then the year is leap year otherwise the else block will execute which display the year is not leap year. The final else of base condition block will execute which have the statement of "The year of 0 is not exist".

Now inside the main method an object should declared to call the method of the calculation method.

Q4. How to check that the input from the user is the vowel or not in java using object oriented approach?

A class of VwCons should define and inside the class a a method is needed which have the procedure of checking the input whether it is vowel or consonant.

Inside the method a variable is required to store the input from the user, the variable will check in the condition is the following:

if(ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u')

if the condition is true program will print the input value is vowel, in the else there is a statement("Not Vowel") to display it.

Now the main method will declared and inside the method an object is created to call the method. So this is the detail of how to check whether the value is vowel or not.

Q5. How to use power of a number in java using object oriented approach?

In the java build-in method of power is used, first of all it is necessary to add library of the built-in method. It work same as exponent method as we are using in the math. Two (Base and exponent) variable are needed to check it.

Now the class should require of PW and inside the class a calculation method is required.

The main of this method is to accept base and exponent values from the user, and then calculated is following:

Base: 4

Exponent: 3

And then math.pow (base, exponent) is executed and print it to the user.

Outside of the class the main method is needed to call the calculation method via object. So this is the whole explanation of how to use power of number.