



CSE 215: Programming Language II Lab

Lab – 5 Methods

Objective:

- To learn about methods
- To learn to implement a program using multiple methods

Methods are a collection of statements that are to execute once that specific method is “called” from within the main method or another method. A method may or may not “return” data after processing.

```
// method signature
<access_modifier> <:static> <return_type> <method_identifier> (params) {
    // statements
}
```

access_modifier -> Whether to allow the method to be called from within other classes
Types: public, private, protected, default

:static -> Optional. Whether to allow the function to be called without instantiating the class in which the method resides.

return_type -> The type of data the method returns. It may be any of the primitive data types, arrays (take that, C!) or may not return anything at all (void).

method_identifier -> Name of the method.

params: Input arguments to the method, may be multiple in number.

Task:

1. Write a method `countVowels(String yourString)` that takes a String as parameter and returns the number of vowels.
2. Write a method `isPalidrome(String yourString)` that determines if a String is palindrome or not. Palindrome is when a String remains the same after reversing. The method should return boolean type.

Sample output: MADAM is palindrome.

3. Write a program that has the following static variable

`balance (initial value 0)`

and these static methods:

`deposit(double amount):` Increase account balance

`withdraw(double amount):` Decrease account balance.

User cannot withdraw if `amount > balance`, so display an appropriate message in this particular case if it happens.

Now run an infinite loop in main program so it displays user with following options:

1. Deposit
2. Withdraw
3. Balance
4. Exit

Under options 1 and 2, the program should ask for appropriate user input (i.e. amount to deposit). Display balance variable if user chooses option 3.