CS 2114

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Exam 1 Notes

Methods

1. String
   1. int length()
   2. String substring(int, int)
      1. returns string from int position to int position
   3. char charAt(int)
      1. returns character at int position
2. Math
   1. double pow(double, double)
      1. Takes the first double and raises it to the second double
   2. double abs(double)
      1. returns the absolute value of a value
   3. double max(double, double)
      1. returns the higher of the two values
   4. double min(double, double)
      1. returns the minimum of the two values
3. Integer
   1. Int parseInt(String)
      1. Returns a string in a integer form
4. Array
   1. length field
      1. the size of the array regardless of number of references

Declarations

1. T[] array
   1. StackArray stack = (T[]) new Object[int]
2. Node firstNode

Encapsulation

1. Information hiding
2. Enclose data and methods within a class
3. Strive for LOW COUPLING and HIGH COHESION

Interface vs. Abstract Class

1. Interface is NOT a class
2. A class can implement many interfaces, but extend only one abstract class

Overriding vs. Overloading

1. Overriding – Redefining methods such as toString() or equals() for classes, an object that comes from these classes will call these overridden methods instead
2. Overloading – Defining a method that has the same name, but different parameters

Notes

1. Object Types are determined at runtime
2. Variables are references to objects
3. Casting does not change an object

final keyword

1. When used with a variable:
   1. Primitive type – can’t change the value
   2. Reference type – the data within object can change, but the object being referenced cannot change
2. When used with a method: the method cannot be overridden
3. When used with a class – the class cannot be have a subclass

(a+b)\*(c-d)/(e + f)

/(+

Ab+cd-\*ef+/