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CSCI 201

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Prof. Sanft

* **This assignment may be done collaboratively (with one or more partners). Include all collaborators' names on the submissions. Each partner should submit their own copy to the Moodle assignment link.**

Problems to be turned in (problems are worth 1 point unless noted otherwise):

* EX 5.2 **List some attributes and operations that might be defined for a**
* **class called PictureFrame that represents a picture frame.**

Atributes:

* + Width
  + Height
  + Photo
  + Frame Style

Operations:

* + Get Photo
  + Set Photo
* EX 5.3 **List some attributes and operations that might be defined for a**
* **class called Meeting that represents a business meeting.**

Atributes:

* + Location
  + Time
  + Members
  + Schedule

Operations:

* + Change Time
  + Cancel Meeting
  + Add Member
  + View Schedule
* EX 5.8 (4 points) (Eclipse; make the method static in the same class as the main class, demonstrate the method by calling the method and printing the result several times in main) **Write a method called random100 that returns a random integer in the range of 1 to 100 (inclusive).**

EX5.8.zip

* EX 5.15 (2 points; write it as if it is an instance method of some class) **Write a method called larger that accepts two floating point parameters (of type double) and returns true if the first parameter is greater than the second, and returns false otherwise.**

public boolean larger(Double other) {

return this.size > other.size;();

}

* EX 5.22 (2 points; write it as if it is an instance method of some class) **Write a method called average that accepts two integer parameters and returns their average as a floating point value.**

public static double average() {

// Sum is a double so that average can store decimal points

double sum = this.num1 + this.num1;

// Average calculation

double average = sum / 2;

return average;

}

* PP 5.5 (10 points) (Eclipse) **Design and implement a class called Dog that contains instance data that represent the dog’s name and age. Define the Dog constructor to accept and initialize instance data. Include getter and setter methods for the name and age. Include a method to compute and return the age of the dog in “person years” (seven times the dog’s age). Include a toString method that returns a one-line description of the dog. Create a driver class called Kennel, whose main method instantiates and updates several Dog objects.**
* PP 5.6 (10 points) (Eclipse) **Design and implement a class called Box that contains instance data that represent the height, width, and depth of the box. Also include a boolean variable called full as instance data that represent whether the box is full or not. Define the Box constructor to accept and initialize the height, width, and depth of the box. Each newly created Box is empty (the constructor should initialize full to false). Include getter and setter methods for all instance data. Include a toString method that returns a one-line description of the box. Create a driver class called BoxTest, whose main method instantiates and updates several Box objects.**
* PP 5.13 (10 points) (Eclipse; it is fine if it deals duplicate cards ) **Design and implement a class called Card that represents a standard playing card. Each card has a suit and a face value. Create a program that deals five random cards.**