# 152-184 Java Programming 1

Final Project
Due Monday Aug 9th @ Midnight

## Dog Rescue Application
19.5 points + .5 Extra Credit Point

You volunteer for a non-profit Dog Rescue organization and need to develop an application to get the following information for each dog you rescue. The application should use classes and store the data in multiple arrays. The application should allow the volunteers to enter the following information:
- name of each dog
- vet costs
- dog food cost

After each dog is entered, the volunteers can Display Dogs, Display Avg. Costs, or Quit the application.

Your application should have at least 2 Java files:
- DogRescue.java → DogRescue class
- UseDogRescue.java → Program file that you run

The finished application should look similar to the image below (you may also use JOptionPane instead):

```
  ----jGRASP exec: java UseDogRescue
*********************
*** Dog Rescue Menu ***
*********************
1. Add Dog
2. Display Dogs
3. Display Avg Costs
4. Quit
------------------
Select a menu item >> |
```

The user may enter 1 to Add Dog and would see the following:

```
  ----jGRASP exec: java UseDogRescue
*********************
*** Dog Rescue Menu ***
*********************
1. Add Dog
2. Display Dogs
3. Display Avg Costs
4. Quit
------------------
Select a menu item >> 1
Enter name of dog >> Mari
Enter the food cost >> 50
Enter the vet cost >> 75
```

You should add **at least 3 dogs** by following the above steps.

## Display Dogs Entered

Once all the dogs (at least 3) have been entered you should be able to display them.

```
*********************
*** Dog Rescue Menu ***
*********************
1. Add Dog
2. Display Dogs
3. Display Avg Costs
4. Quit
-------------------
Select a menu item >> 2
****************
***** Dogs *****
****************
There are 3 dogs.
Dog Name: Mari
Dog Name: Bryce
Dog Name: Brooke
```

## Display Avg. Costs

Now that all the dogs have been entered you should be able to display the average Vet & Food costs.

```
*********************
*** Dog Rescue Menu ***
*********************
1. Add Dog
2. Display Dogs
3. Display Avg Costs
4. Quit
-------------------
Select a menu item >> 3
******************
** Average Cost **
******************
There are 3 dogs.
Avg Food Cost: $50.0
Avg Vet Cost: $75.0
```

Finally…to quit the application the user should be able to select option #4.

```
**********************
*** Dog Rescue Menu ***
**********************
1. Add Dog
2. Display Dogs
3. Display Avg Costs
4. Quit
-------------------
Select a menu item >> 4

 ----jGRASP: operation complete.
|
```

This Final Project is worth **19.5 points**.

| Grading Rubric | |
| --- | --- |
| **Task** | **Points** |
| Create DogRescue class & UseDogRescue class | 1.5 |
| Create 3 arrays to store dogs, vet, food info from user | 3 |
| Create Setters & Getters in DogRescue class | 3 |
| Use while loop to display menu and get input from user | 2 |
| Create displayMenu method | 2 |
| Create displayDogs method → Displays Dog name | 4 |
| Create displayAvgCost method → Displays Avg Food & Vet cost | 4 |
| **Total** | **19.5** |
| **Extra Credit:** Error displays if Dog Name is NOT entered | **.5** |
| **Total with Extra Credit** | **20** |