

125 pts

Name 1: _____

Name 2: _____

Class Day / Time: _____

Due Date: _____

Lab #13: Intro to OOP

You will implement Farmer Pete's animal class discussed in class. You will need to **Demo** this lab.

Modify as follows:

- Omit the Farmer object & the sell option

Create 3 instances of your class (fluffy, maa, & babe).

Provide the following menu for the first run.

1 - Initialize Animals

0 - Exit

Enter selection:

After the first run provide the following menu and associated functionality.

1 - Initialize Animals

2 - Change Age

3 - Change Value

4 - Display

0 - Exit

Enter selection:

The **initialize** function should initialize the animals according to the table below:

ANIMAL	NAME	AGE	VALUE
Sheep	Fluffy	1	\$ 15000.00
Sheep	Maa	3	\$ 16520.35
Pig	Babe	2	\$ 10240.67

The **Display** option should Output a table formatted like the one below:

ANIMAL	NAME	AGE	VALUE
Sheep	Fluffy	1	15000.00
Sheep	Maa	3	16520.35
Pig	Babe	2	10240.67

The **Change Age** or **Change Value** options should allow the user to select which animal to modify using the following menus:

CHANGE AGE:

1 - Fluffy

2 - Maa

3 - Babe

Select the animal you'd like to change:

CHANGE VALUE:

1 - Fluffy

2 - Maa

3 - Babe

Select the animal you'd like to change:

All non-string input values should be error checked (use generic functions for int, float, and two char input).

Turn in (IN THIS ORDER - stapled)

1. The **first page** of this lab
2. **Output** → cut and pasted to a txt file within eclipse and printed
3. **Header Files** (General header file, then class header file – including class definition documentation)
4. Main
5. Implementation of Class Methods (use documentations as described in class)
6. Implementation of any necessary functions

INPUT/OUTPUT:

NOTE: Output doesn't need to be in columns and where is states <re-display Main Menu> actually re-display the Main Menu

```
1 - Initialize Animals
0 - Exit
Enter selection: 2
```

```
**** The number 2 is an invalid entry ****
**** Please input a number between 0 and 1 ****
```

```
1 - Initialize Animals
0 - Exit
Enter selection: a
```

```
**** Please input a number between 0 and 1 ****
```

```
1 - Initialize Animals
0 - Exit
Enter selection: 1
```

```
Initializing Fluffy, Maa, & Babe...
```

```
1 - Initialize Animals
2 - Change Age
3 - Change Value
4 - Display
0 - Exit
Enter selection: 5
```

```
**** The number 5 is an invalid entry ****
**** Please input a number between 0 and 4 ****
```

```
<Re-display Main Menu>
Enter selection: 4
```

ANIMAL	NAME	AGE	VALUE
Sheep	Fluffy	1	15000.00
Sheep	Maa	3	16520.35
Pig	Babe	2	10240.67

```
<Re-display Main Menu>
Enter selection: 2
```

```
CHANGE AGE:
1 - Fluffy
2 - Maa
3 - Babe
Select the animal you'd like to change: 4
```

```
**** The number 4 is an invalid entry ****
```

```
**** Please input a number between 1 and 3 ****
```

```
CHANGE AGE:
1 - Fluffy
2 - Maa
3 - Babe
Select the animal you'd like to change: a
```

```
**** Please input a number between 1 and 3 ****
```

```
CHANGE AGE:
1 - Fluffy
2 - Maa
3 - Babe
Select the animal you'd like to change: 1
```

```
NEW AGE: 2
```

```
Changing Fluffy's age to 2 ...
```

```
<Re-display Main Menu>
Enter selection: 2
```

```
CHANGE AGE:
1 - Fluffy
2 - Maa
3 - Babe
Select the animal you'd like to change: 2
```

```
NEW AGE: 4
```

```
Changing Maa's age to 4 ...
```

```
<Re-display Main Menu>
Enter selection: 2
```

```
CHANGE AGE:
1 - Fluffy
2 - Maa
3 - Babe
Select the animal you'd like to change: 3
```

```
NEW AGE: 11
```

```
**** The number 11 is an invalid entry ****
**** Please input a number between 0 and 10 ****
```

```
NEW AGE: 3
```

```
Changing Babe's age to 3 ...
```

```
<Re-display Main Menu>
Enter selection: 4
```

ANIMAL	NAME	AGE	VALUE
Sheep	Fluffy	2	15000.00
Sheep	Maa	4	16520.35
Pig	Babe	3	10240.67

```
<Re-display Main Menu>
Enter selection: 3
```

```
CHANGE VALUE:
1 - Fluffy
2 - Maa
3 - Babe
Select the animal you'd like to change: 4

**** The number 4 is an invalid entry ****
**** Please input a number between 0 and 3 ****
```

```
CHANGE VALUE:
1 - Fluffy
2 - Maa
3 - Babe
Select the animal you'd like to change: 1
```

```
NEW VALUE: 154154.51
```

```
Changing Fluffy's value to 154154.52 ...
```

```
<Re-display Main Menu>
Enter selection: 3
```

```
CHANGE VALUE:
1 - Fluffy
2 - Maa
3 - Babe
Select the animal you'd like to change: 2
```

```
NEW VALUE: 651651.61
```

```
**** The number 651652 is an invalid entry ****
**** Please input a number between 0 and 400000****
```

```
NEW VALUE: 165165.61
```

```
Changing Maa's value to 165165.61 ...
```

```
<Re-display Main Menu>
Enter selection: 3
```

```
CHANGE VALUE:
1 - Fluffy
2 - Maa
3 - Babe
Select the animal you'd like to change: 3
```

```
NEW VALUE: 123123.12
```

```
Changing Babe's value to 123123.12 ...
```

```
<Re-display Main Menu>
Enter selection: 4
```

ANIMAL	NAME	AGE	VALUE
Sheep	Fluffy	2	154154.52
Sheep	Maa	4	165165.61
Pig	Babe	3	123123.12

```
<Re-display Main Menu>
Enter selection: 1
```

```
Are you sure you want to reinitialize (Y/N)? x
**** X is an invalid entry ****
**** Please input Y or N ****
```

```
Are you sure you want to reinitialize (Y/N)? n
Animals have not been re-initialized!
```

```
<Re-display Main Menu>
Enter selection: 4
```

ANIMAL	NAME	AGE	VALUE
Sheep	Fluffy	2	154154.52
Sheep	Maa	4	165165.61
Pig	Babe	3	123123.12

```
<Re-display Main Menu>
Enter selection: 1
```

```
Are you sure you want to reinitialize (Y/N)? Y
Initializing Fluffy, Maa, & Babe...
```

```
<Re-display Main Menu>
Enter selection: 4
```

ANIMAL	NAME	AGE	VALUE
Sheep	Fluffy	1	15000.00
Sheep	Maa	3	16520.35
Pig	Babe	2	10240.67

```
<Re-display Main Menu>
Enter selection: 0
```