COMI 1510 Java Programming Programming Assignment 3

# Specifications

## Problem Description

Clarifications: Include in your submission everything you’ve clarified with the professor.

Assumptions: Include in your submission anything you assumed but didn’t clarify. Include a justification.

# Testing

## Test case 1

### Purpose

Test all menu options with correct input, testing fish at the beginning and end of the array.

### Input

A file of ten records of commercial fishing data such as:  
Alewife

1735

1645

488

Anchovies

23410

10371

1680

Atka mackerel

69503

96543

22494

Bluefish

5182

5538

3106

Blue runner

301

306

268

Bonito

152

140

182

Butterfish

7292

3319

4754

Catfish

10000

9405

5118

Atlantic Cod

5170

11196

9358

Pacific Cod

717548

664353

153724

User input for each menu item, for selecting fish at the beginning and end of the array, and for new values.

### Expected output

Commercial Fisheries Data Menu

1. List all species data

2. Change weight

3. Show average weight difference

4. Show largest dollar value

5. Show total dollar value

6. Quit

Your choice: 1

Name: Alewife

Pounds (1000's): 1,735

Five year average: 1,645

Cost (1000's): $ 488

Name: Anchovies

Pounds (1000's): 23,410

Five year average: 10,371

Cost (1000's): $ 1,680

Name: Atka mackerel

Pounds (1000's): 69,503

Five year average: 96,543

Cost (1000's): $ 22,494

Name: Bluefish

Pounds (1000's): 5,182

Five year average: 5,538

Cost (1000's): $ 3,106

Name: Blue runner

Pounds (1000's): 301

Five year average: 306

Cost (1000's): $ 268

Name: Bonito

Pounds (1000's): 152

Five year average: 140

Cost (1000's): $ 182

Name: Butterfish

Pounds (1000's): 7,292

Five year average: 3,319

Cost (1000's): $ 4,754

Name: Catfish

Pounds (1000's): 10,000

Five year average: 9,405

Cost (1000's): $ 5,118

Name: Atlantic Cod

Pounds (1000's): 5,170

Five year average: 11,196

Cost (1000's): $ 9,358

Name: Pacific Cod

Pounds (1000's): 717,548

Five year average: 664,353

Cost (1000's): $ 153,724

Commercial Fisheries Data Menu

1. List all species data

2. Change weight

3. Show average weight difference

4. Show largest dollar value

5. Show total dollar value

6. Quit

Your choice: 2

Select a species:

1. Alewife

2. Anchovies

3. Atka mackerel

4. Bluefish

5. Blue runner

6. Bonito

7. Butterfish

8. Catfish

9. Atlantic Cod

10. Pacific Cod

Which species? (1-10): 1

Current weight: 1735

Please enter the new weight: 1700

Name: Alewife

Pounds (1000's): 1,700

Five year average: 1,645

Cost (1000's): $ 488

Commercial Fisheries Data Menu

1. List all species data

2. Change weight

3. Show average weight difference

4. Show largest dollar value

5. Show total dollar value

6. Quit

Your choice: 3

Select a species:

1. Alewife

2. Anchovies

3. Atka mackerel

4. Bluefish

5. Blue runner

6. Bonito

7. Butterfish

8. Catfish

9. Atlantic Cod

10. Pacific Cod

Which species? (1-10): 5

Difference between five-year average and 2014 weight: -5

Commercial Fisheries Data Menu

1. List all species data

2. Change weight

3. Show average weight difference

4. Show largest dollar value

5. Show total dollar value

6. Quit

Your choice: 4

The species with the largest dollar value is:

Name: Pacific Cod

Pounds (1000's): 717,548

Five year average: 664,353

Cost (1000's): $ 153,700

Commercial Fisheries Data Menu

1. List all species data

2. Change weight

3. Show average weight difference

4. Show largest dollar value

5. Show total dollar value

6. Quit

Your choice: 5

The sum of the dollar values of all species is: $201,148,000.00

Commercial Fisheries Data Menu

1. List all species data

2. Change weight

3. Show average weight difference

4. Show largest dollar value

5. Show total dollar value

6. Quit

Your choice: 6

### Your program running

Paste your program executing in the testing document here. Show a complete execution.

### Conclusions

Describe whether your program’s output matches expectations.

## Test case 2

### Purpose

Test invalid menu input for both menus.

### Input

A file of ten records of commercial fishing data such as:  
Alewife

1735

1645

488

Anchovies

23410

10371

1680

Atka mackerel

69503

96543

22494

Bluefish

5182

5538

3106

Blue runner

301

306

268

Bonito

152

140

182

Butterfish

7292

3319

4754

Catfish

10000

9405

5118

Atlantic Cod

5170

11196

9358

Pacific Cod

717548

664353

153724

User input for each menu item.

### Expected output

Commercial Fisheries Data Menu

1. List all species data

2. Change weight

3. Show average weight difference

4. Show largest dollar value

5. Show total dollar value

6. Quit

Your choice: 7

Your choice: 0

Your choice: 3

Select a species:

1. Alewife

2. Anchovies

3. Atka mackerel

4. Bluefish

5. Blue runner

6. Bonito

7. Butterfish

8. Catfish

9. Atlantic Cod

10. Pacific Cod

Which species? (1-10): 0

Which species? (1-10): 11

Which species? (1-10): 1

Difference between five-year average and 2014 weight: 90

Commercial Fisheries Data Menu

1. List all species data

2. Change weight

3. Show average weight difference

4. Show largest dollar value

5. Show total dollar value

6. Quit

Your choice: 6

### Your program running

Paste your program executing in the testing document here. Show a complete execution.

### Conclusions

Describe whether your program’s output matches expectations.

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