

# Program 4 Creature Fight Game

CSC 1300 / Fall 2024



## IMPORTANT DATES

**Assignment Date:** Wednesday, November 6, 2024

**Due Date:** Monday, November 25, 2024 (by 11:59pm)

You may turn in your submission up to **two days late** with a **penalty of 10 points per day late**. After the two days have passed, the submission folder will **close** in ilearn, and you will not be able to submit. If ilearn marks your assignment as late, then the points will be deducted. **No programs sent outside of the ilearn submission folder will be graded!**

## WHAT TO TURN IN:

- Zip & upload to Program 4 assignment in ilearn.
- Name your zip file **yourTTUusername\_program4.zip**
- **creatureFight.cpp**, **program4.h**, **functions.cpp**
- **creatures.txt** – this should be a text file with at least FIVE creatures that you created with your program (data should be separated by #).

## IMPORTANT RULES TO REMEMBER:

- **Do NOT use ChatGPT, copilot, or any other generative AI** to produce code for this program. This is considered cheating, and you will be charged with academic misconduct and earn a ZERO for this programming assignment.
- **Do NOT work with a partner, friend, or classmate on this program!!** This will be considered cheating, and you will be charged with academic misconduct and earn a ZERO for this programming assignment. Get help from the Teaching Assistants/Mrs. Crockett/Mr. Vandergriff when you get stuck!!
- Include comments throughout your code and a comment block at the top of your source file containing the filename, author, title, and date
- Make your output neat, easy to read, and make sure everything is spelled correctly and uses proper grammar.
- Each programming statement should be on its own line, and you should use consistent indentions.
- **Do NOT use programming constructs not yet taught in the class.** This means you **can't use the following in your program:**
  - Objects/classes
  - Libraries not covered in class (can't use map, etc.)
  - Ternary operators
- Do not use the STL Vectors or STL Arrays in this program!

## PROGRAM SPECIFICATIONS:

### GIVEN FILES

- **functions.cpp** – contains two functions already written for you
- **creatures.txt** – a sample text file that you can use for testing

### STRUCTURES: (DEFINE ALL STRUCTURES IN **PROGRAM4.H**)

You will need to create two structures. One is called **Stats**. Stats will have the following members:

- An **integer** holding the creatures hit points (how hard the creature hits)
- An **integer** holding the creature's health points (how much health the creature has left)
- A **3-element character array**
  - 1<sup>st</sup> element indicates if the creature has a special hit modifier  
'0' = no hit modifier  
'1' = creature has a hit modifier
  - 2<sup>nd</sup> element indicates what the hit modifier is between '0' and '9'

The second structure is called **Creatures**. Creatures will have the following members:

- The name of the creature
- The description of the creature
- The average length of the creature (in feet) – this should be a **double**
- The average height of the creature (in feet) – this should be a **double**
- The location of the creature (example: its origin or where they are commonly found)
- If the creature is dangerous (**Boolean** variable)
- A variable to hold the Stats structure members (nested structure)

## THE MAIN FUNCTION: (DEFINE MAIN FUNCTION IN CREATUREFIGHT.CPP)

You will ask the user for the maximum number of creatures that can fit in the user's arena and read that in. Make sure to validate the user's input to ensure it was a positive integer that they entered in.

```
What is the maximum number of creatures that can fit in your arena?
```

```
MAX NUM OF CREATURES: bum
```

```
Oops! That didn't make sense. Please enter a positive integer.
```

```
MAX NUM OF CREATURES: -50
```

```
Oops! That didn't make sense. Please enter a positive integer.
```

```
MAX NUM OF CREATURES: 9
```

Then, **DYNAMICALLY ALLOCATES** an array of Creatures of that size.

You will also need a variable that will keep track of the current number of Creatures stored in the array.

The main function will display a menu of five options:

```
What would you like to do?
```

1. Enter some creatures
  2. Fight! Fight! Fight!
  3. Delete a creature
  4. Print creatures to screen
  5. Print creature stats
  6. End Program.
- ```
ENTER 1-6:
```

Make sure you always validate all user choices in the whole program before proceeding to do what the user wants.

```
ENTER 1-6: bum
```

```
Your choice was invalid. ENTER 1-6: -4
```

```
Your choice was invalid. ENTER 1-6: 2
```

Each menu choice will call a function that you will create.

- If the user chooses option 1, then your program will call the **enterCreatures** function.
- If the user chooses option 2, then your program will call the **fight** function.
- If the user chooses option 3, then your program will call the **deleteCreature** function.
- If the user chooses option 4, then your program will call the **printCreatures** function.
- If the user chooses option 5, then your program will call the **printStats** function.
- If the user chooses option 6, then your program will ask the user if they wish to save their creature list to a file. If they choose yes, then your program should call the **saveCreaturesToFile** function and then end. Otherwise, your program should print "GOODBYE!" and then end.

```
Would you like to save your creature list to a file? (y or n)
```

## ENTERCREATURES FUNCTION

The **enterCreatures()** function takes three parameters: the maximum number of creatures the array can hold, the number of creatures currently loaded in the Creatures array, and the Creatures array. The function should return the updated number of creatures. The **enterCreatures()** function prototype should be in program4.h and the function definition should be in functions.cpp.

Print a row of stars and then "ENTER CREATURES!" like the sample below.

```
*****
----- ENTER CREATURES! -----
```

Before trying to add any creatures, this function should first check to make sure the number of creatures isn't already at the max. Because if it is, then your program should not add any creatures, but should instead tell the user that they are already at the maximum capacity of [MAX] creatures and that they are not able to add any additional creatures. Then the function should end.

Otherwise, your program will display a menu asking the user if they would like to do one of the following:

```
Would you like to (1)Load my creatures from a text file or (2)Enter one creature manually?
CHOOSE 1 or 2:
```

Validate the user's choice.

---

#### OPTION 1:

- If the user chooses option 1, then ask the user what the name of the file is that they would like to load the creatures from. Then open their file. Check if the file could open before reading from it.
- Read each creature from the file and place them in the Creatures array, making sure that you increment the number of creatures each time a creature is added.
- When you are reading from the file, everything read in will have to be read in as a string since the data is separated by '#'.
- Some of the Creature members are strings, so that won't be a problem. However, some of the Creature members are doubles or a bool. So, you will need to convert the string to a double (using `stof()` function) or the string to an integer (using `stoi()` function) and then place in the Creatures array.
- Then return the number of creatures at the end of the function.

```
Would you like to (1)Load my creatures from a text file or (2)Enter one creature manually?
CHOOSE 1 or 2: 1
What is the name of the file with your list of creatures? (ex: filename.txt)
FILENAME: creatures.txt

7 creatures from creatures.txt have been added to the program!
```

---

#### OPTION 2:

- If the user chooses option 2, then you will want to start a loop so that the user can add multiple creatures manually without returning to the main menu.
- Ask the user for the following data below and make sure you place each bit of information in the correct place in the Creatures array. **You do NOT have to validate this part of the input. You may assume that the user will enter in the correct data types**
  - NAME:
  - DESCRIPTION:
  - AVERAGE LENGTH (in feet):
  - AVERAGE HEIGHT (in feet):
  - LOCATION:
  - IS IT A DANGEROUS CREATURE? (y or n)
  - HIT POINTS:
  - HEALTH POINTS:
  - HIT SPECIAL MODIFIER? (y or n)

- HIT MODIFIER (0 through 9):
- Then, increment the number of creatures by one.
- Then, ask the user if they want to add another creature.
  - If they do, then repeat this option.
  - If not, then just return the number of creatures.

```
*****
----- ENTER CREATURES! -----
```

Would you like to (1)Load my creatures from a text file or (2)Enter one creature manually?

CHOOSE 1 or 2: 2

NAME: Elephant Seal

DESCRIPTION: Elephant seals are large marine mammals known for their size and the unique, trunk-like noses of adult males, which resemble an elephant's trunk (hence the name). There are two species: the Northern Elephant Seal and the Southern Elephant Seal. Males are much larger than females, and during breeding season, they engage in fierce battles for dominance.

AVERAGE LENGTH (in feet): 20

AVERAGE HEIGHT (in feet): 4.5

LOCATION: Pacific coast of North America or sub-Antarctic

IS IT A DANGEROUS CREATURE? (y or n): n

HIT POINTS: 394

HEALTH POINTS: 88

HIT SPECIAL MODIFIER? (y/n) n

The Elephant Seal has been added!

Want to add more creatures? (y or n) y

NAME: Baboon

DESCRIPTION: Baboons have robust bodies with short, dog-like muzzles, prominent brows, and powerful jaws with sharp canine teeth. They have a short, almost tufted tail, and their coat varies from olive-brown to yellowish-brown. Baboons have a range of facial expressions they use to communicate with one another, from showing teeth in friendly gestures to lip-smacking and eyebrow-raising for social interactions. They live in large troops that have up to 150 individuals.

AVERAGE LENGTH (in feet): 2.5

AVERAGE HEIGHT (in feet): 2

LOCATION: Sub-Saharan Africa from savannas and grasslands to tropical forests and semi-arid deserts

IS IT A DANGEROUS CREATURE? (y or n): y

HIT POINTS: 759

HEALTH POINTS: 680

HIT SPECIAL MODIFIER? (y/n) y

HIT MODIFIER (0 through 9): 4

The Baboon has been added!

Want to add more creatures? (y or n) n

## FIGHT FUNCTION

The ***fight()*** function is provided for you! It should work as long as you pass the current number of creatures and the creatures array to the function when you call it. Also, this function returns the updated number of creatures. The ***fight()*** function prototype should be in program4.h and the function definition should be in functions.cpp.

Note: this function generates a random number. This means you need to include the needed libraries in your header file and make sure you seed the random number generator in the main function.

## CALCULATEMODIFIER FUNCTION

The ***calculateModifier()*** function is provided for you! It should work as it is and is called by the ***fight()*** function, which is also written for you. The ***calculateModifier()*** function prototype should be in program4.h and the function definition should be in functions.cpp.

## DELETECREATURE FUNCTION

The ***deleteCreature()*** function has two parameters: the current number of creatures in the Creatures array and the Creatures array. This function returns the new number of creatures. The ***deleteCreature()*** function prototype should be in program4.h and the function definition should be in functions.cpp.

Print a row of stars and then "DELETE CREATURE" like the sample below.

```
*****
----- DELETE CREATURE -----
```

This function will first check if there are any creatures in the array. If not, print "Oh no! There are no creatures in the arena!"

However, if there are creatures in the array, print "The following is a list of all the creatures: " and then it will say the name of each creature. Then, your program will ask the user "What creature do you wish to remove?"

```
The following is a list of all the creatures:
Elephant Seal
Banshee
Troll
Mike Wazowski
Brandon Vandergriff
April Crockett
Jack Crockett
```

```
What creature do you wish to remove?
CREATURE NAME:
```

Your program should then read in the name and place it in a variable. Then, this function will call the ***moveArrayElements*** function, which will take care of removing the creature.

The ***moveArrayElements*** function returns a Boolean value to tell if the creature was removed or not. If it was removed (moveArrayElements returned true), then decrement the number of creatures and print out "You have removed [insert creature name here]." Then return the new number of creatures.

```
What creature do you wish to remove?
CREATURE NAME: Troll
```

```
You have removed Troll.
```



If the creature was not removed because the user didn't type in a name of one of the existing creatures (moveArrayElements returned false), then print "Sorry, a creature by the name [NAME USER ENTERED IN] could not be found. Then return the number of creatures.

```
What creature do you wish to remove?
```

```
CREATURE NAME: bum
```

```
Sorry, a creature by the name bum could not be found.
```

## MOVEARRAYELEMENTS FUNCTION

The *moveArrayElements()* function has the following parameters: a string with the name of the creature that the user wishes to remove, the current number of creatures in the Creature array, and the Creatures array. This function returns a Boolean value that is *true* if the creature was removed and *false* if it was not removed. The *moveArrayElements()* function prototype should be in program4.h and the function definition should be in functions.cpp.

- This function should first find the index number of the creature that needs to be removed.
- Once that is found, then you know there is a creature in the Creatures array by that name and that your program will be able to remove it.
- If your program cannot find the creature in the array, then you return false from this function.
- Otherwise, this function should now overwrite the element with the creature to delete (x) with the next element in the array (x+1), moving each element after the deleted element to the left.
- Then return true that the creature was found & removed.

## PRINTCREATURES FUNCTION

The *printCreatures()* function is a void function and contains the following parameters: number of creatures currently in the Creatures array and the Creatures array. The *printCreatures()* function prototype should be in program4.h and the function definition should be in functions.cpp.

```
*****  
----- PRINT CREATURES -----
```

This function will first check if there are any creatures in the array. If not, print "Oh no! There are no creatures in the arena!"

However, if there are creatures in the array, print out all the creatures in the Creatures array to the screen in the following format:

```
Here is a detailed list of all the creatures who are eligible to fight:
```

```
----- CREATURE 1 -----
```

```
Name:           Elephant Seal
```

```
Description:
```

```
    Elephant seals are large marine mammals known for their size  
    and the unique, trunk-like noses of adult males, which resemble  
    an elephant's trunk (hence the name). There are two species:  
    the Northern Elephant Seal and the Southern Elephant Seal.  
    Males are much larger than females, and during breeding  
    season, they engage in fierce battles for dominance.
```

```
Length:         20 feet
```

```
Height:         4.5 feet
```

```
Location:       Pacific coast of North America or sub-Antarctic
```

```
Dangerous?      no
```

```
Hit Points:     394
```

```
Health Points:  88
```

Special Bonus: No hit modifier

----- CREATURE 2 -----

Name: Banshee

Description:

The English Banshee is a fairy woman who wails when death is approaching. They do not cause death, only mourn it. Banshees are almost always female, and are usually seen with long, dark, black hair and pale cheeks. Their eyes also are usually red from crying.

Length: 1 feet

Height: 7.6 feet

Location: Ireland

Dangerous? yes

Hit Points: 745

Health Points: 543

Special Bonus: No hit modifier

----- CREATURE 3 -----

Name: Troll

Description:

Ugly and big. Smells bad like farts.

Length: 3 feet

Height: 9.5 feet

Location: Caves, forests, isolated areas of rocks, and the ocean

Dangerous? no

Hit Points: 948

Health Points: 596

Special Bonus: Hit modifier of 5

----- CREATURE 4 -----

Name: Mike Wazowski

Description:

One-eyed, funny green monster. A scare assistant to James P. Sullivan at Monsters, Inc. Mike doesn't want any interruptions in his life.

Length: 1 feet

Height: 3 feet

Location: Monstropolis

Dangerous? no

Hit Points: 395

Health Points: 947

Special Bonus: Hit modifier of 4

----- CREATURE 5 -----

Name: Brandon Vandergriff

Description:

Likes long walks on the beach and -- wrong bio... my bad. He's usually either jamming on the bass, cooking, and drinking insane amounts of caffeine. His favorite bands are Dexter and the Moonrocks and Quarters of Change, but he will listen to anything. During his time at Tech, he was big into competing with the Esports Club.

Length: 1.45 feet

Height: 8.45 feet

Location: Bruner Hall Room 228

Dangerous? yes

Hit Points: 948

Health Points: 654



Special Bonus: Hit modifier of 1

----- CREATURE 6 -----

Name: April Crockett

Description:

She has many interests other than computing including working jigsaw puzzles, doing anything crafty, going to the movies, going to the zoo, hanging out with her family, her pets, Halloween, gardening, Guardians of the Galaxy (especially Drax), memes, AI-generated animals, girls trips with her sister, ATVs, archery, fishing (for small amounts of time), popcorn, Italian food, and gummy twin snakes.

Length: 2.45 feet

Height: 4.2 feet

Location: Bruner Hall Room 119

Dangerous? yes

Hit Points: 12934

Health Points: 294

Special Bonus: Hit modifier of 5

----- CREATURE 7 -----

Name: Jack Crockett

Description:

Fat white dog who loves to be petted and around his peeps.

Length: 3.5 feet

Height: 2.3 feet

Location: The Crockett House and sometimes on campus or at Cane Creek Park

Dangerous? no

Hit Points: 1

Health Points: 70654

Special Bonus: Hit modifier of 9

## BONUS OPPORTUNITY!

- Notice that the description does word wrapping.
- In other words, each word is not split up – they are kept together.
- Also, the description is tabbed over for readability.
- You get a bonus of 5 points if you can duplicate this formatting for your descriptions!

## PRINTSTATS FUNCTION

The **printStats()** function is a void function and it contains two parameters: the current number of creatures in the Creature array and the Creatures array. The **printStats()** function prototype should be in program4.h and the function definition should be in functions.cpp.

This function will first check if there are any creatures in the array. If not, print “Oh no! There are no creatures in the arena!”

This function should print out each creature’s name, hit points, health points, and special bonus in a neat, easy to read format like the sample output below. Use setw() to set up the columns in a neat format. Also make sure to have the row at the top with the labels “CREATURE”, “HIT PTS”, etc.

```
*****
----- PRINT CREATURE STATISTICS -----
```

Here are the current stats of each creature:

| CREATURE            | HIT PTS | HEALTH PTS | SPECIAL BONUS     |
|---------------------|---------|------------|-------------------|
| Elephant Seal       | 394     | 88         | No hit modifier   |
| Banshee             | 745     | 543        | No hit modifier   |
| Mike Wazowski       | 395     | 947        | Hit modifier of 4 |
| Brandon Vandergriff | 948     | 654        | Hit modifier of 1 |
| April Crockett      | 12934   | 294        | Hit modifier of 5 |
| Jack Crockett       | 1       | 70654      | Hit modifier of 9 |

## SAVECREATURESTOFILE FUNCTION

The *saveCreaturesToFile()* function is a void function and it contains two parameters: the current number of creatures in the Creatures array and the Creatures array.

First, print what you are doing:

```
*****
----- SAVE CREATURES TO FILE -----
```

The function should ask the user what the name of the file that they wish to save their creatures to. The function should then open that file and print all the creature data in the following order and **make sure there is no endlines or newlines, but a '#' is printed after each piece of data.**

- Name
- Description
- Avg. Length
- Avg. Height
- Location
- Dangerous
- Hit points
- Health points
- pecial modifier

Also, print to the screen a confirmation that the creature was saved to the file as you see in the sample output below.

```
What is the name of the file you want to save your creatures to?
FILENAME:  creatures_2.txt
```

```
Elephant Seal was saved to file.
Banshee was saved to file.
Mike Wazowski was saved to file.
Brandon Vandergriff was saved to file.
April Crockett was saved to file.
Jack Crockett was saved to file.
```

After printing all data from the Creatures array to the file, this function should print a message to standard output:

```
6 creatures were successfully saved to the creatures_2.txt file.
```

## SAMPLE TEXT FILE

Before running the program, I had a text file already filled with some creatures. The text file was called creatures.txt:

```
creatures.txt x functions.cpp x creatureFight.cpp x program4.h x
1 Beholder#Giant center eye and twelve eye stalks above it. It is a flying
  eyeball. Mouth full of razor sharp teeth. Eye stalks shoot various beams of
  magical death-dealing energy.#7#8#Deep, underground
  caverns#1#1035#265#18#Banshee#The English Banshee is a fairy woman who wails when
  death is approaching.They do not cause death, only mourn it. Banshees are almost
  always female, and are usually seen with long, dark, black hair and pale cheeks.
  Their eyes also are usually red from
  crying.#1#7.6#Ireland#1#745#543#00#Troll#Ugly and big. Smells bad like
  farts.#3#9.5#Caves, forests, isolated areas of rocks, and the
  ocean#0#948#596#15#Mike Wazowski#One-eyed, funny green monster. A scare
  assistant to James P. Sullivan at Monsters, Inc. Mike doesn't want any
  interruptions in his life.#1#3#Monstropolis#0#395#947#14#Brandon
  Vandergriff#Likes long walks on the beach and -- wrong bio... my bad. He's
  usually either jamming on the bass, cooking, and drinking insane amounts of
  caffeine. His favorite bands are Dexter and the Moonrocks and Quarters of Change,
  but he will listen to anything. During his time at Tech, he was big into
  competing with the Esports Club.#1.45#8.45#Bruner Hall Room
  228#1#948#654#11#April Crockett#She has many interests other than computing
  including working jigsaw puzzles, doing anything crafty, going to the movies,
  going to the zoo, hanging out with her family, her pets, Halloween, gardening,
  Guardians of the Galaxy (especially Drax), memes, AI-generated animals, girls
  trips with her sister, ATVs, archery, fishing (for small amounts of time),
  popcorn, Italian food, and gummy twin snakes.#2.45#4.2#Bruner Hall Room
  119#1#12934#294#15#Jack Crockett#Fat white dog who loves to be petted and around
  his peeps.#3.5#2.3#The Crockett House and sometimes on campus or at Cane Creek
  Park#0#1#84958#19#
```

## SAMPLE OUTPUT

User input is highlighted in yellow.

```
*****
CREATURE FIGHT!
*****

What is the maximum number of creatures that can fit in your arena?
MAX NUM OF CREATURES: bum
Oops! That didn't make sense. Please enter a positive integer.
MAX NUM OF CREATURES: -50
Oops! That didn't make sense. Please enter a positive integer.
MAX NUM OF CREATURES: 9

What would you like to do?
1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.
ENTER 1-6: bum
Your choice was invalid. ENTER 1-6: -4
Your choice was invalid. ENTER 1-6: 2

*****
----- FIGHT! FIGHT! FIGHT! -----

Oh no! There are no creatures in the arena!

What would you like to do?
1. Enter some creatures
2. Fight! Fight! Fight!
```

3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 3

\*\*\*\*\*  
----- DELETE CREATURE -----

Oh no! There are no creatures in your arena!

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 4

\*\*\*\*\*  
----- PRINT CREATURES -----

Oh no! There are no creatures in your arena!

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 5

\*\*\*\*\*  
----- PRINT CREATURE STATISTICS -----

Oh no! There are no creatures in your arena!

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 1

\*\*\*\*\*  
----- ENTER CREATURES! -----

Would you like to (1)Load my creatures from a text file or (2)Enter one creature manually?

CHOOSE 1 or 2: 2

NAME: Elephant Seal

DESCRIPTION: Elephant seals are large marine mammals known for their size and the unique, trunk-like noses of adult males, which resemble an elephant's trunk (hence the name). There are two species: the Northern Elephant Seal and the Southern Elephant Seal. Males are much larger than females, and during breeding season, they engage in fierce battles for dominance.

AVERAGE LENGTH (in feet): 20

AVERAGE HEIGHT (in feet): 4.5

LOCATION: Pacific coast of North America or sub-Antarctic

IS IT A DANGEROUS CREATURE? (y or n): n

HIT POINTS: 394

HEALTH POINTS: 88

HIT SPECIAL MODIFIER? (y/n) n

The Elephant Seal has been added!

Want to add more creatures? (y or n) y

NAME: Baboon

DESCRIPTION: Baboons have robust bodies with short, dog-like muzzles, prominent brows, and powerful jaws with sharp canine teeth. They have a short, almost tufted tail, and their coat varies from olive-brown to yellowish-brown. Baboons have a range of facial expressions they use to communicate with one another, from showing teeth in friendly gestures to lip-smacking and eyebrow-raising for social interactions. They live in large troops that have up to 150 individuals.

AVERAGE LENGTH (in feet): 2.5

AVERAGE HEIGHT (in feet): 2

LOCATION: Sub-Saharan Africa from savannas and grasslands to tropical forests and semi-arid deserts  
IS IT A DANGEROUS CREATURE? (y or n): y  
HIT POINTS: 759  
HEALTH POINTS: 680  
HIT SPECIAL MODIFIER? (y/n) y  
HIT MODIFIER (0 through 9): 4

The Baboon has been added!

Want to add more creatures? (y or n) n

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 4

\*\*\*\*\*  
----- PRINT CREATURES -----

Here is a detailed list of all the creatures who are eligible to fight:

----- CREATURE 1 -----

Name: Elephant Seal

Description:

Elephant seals are large marine mammals known for their size and the unique, trunk-like noses of adult males, which resemble an elephant's trunk (hence the name). There are two species: the Northern Elephant Seal and the Southern Elephant Seal. Males are much larger than females, and during breeding season, they engage in fierce battles for dominance.

Length: 20 feet  
Height: 4.5 feet  
Location: Pacific coast of North America or sub-Antarctic  
Dangerous? no  
Hit Points: 394  
Health Points: 88  
Special Bonus: No hit modifier

----- CREATURE 2 -----

Name: Baboon

Description:

Baboons have robust bodies with short, dog-like muzzles, prominent brows, and powerful jaws with sharp canine teeth. They have a short, almost tufted tail, and their coat varies from olive-brown to yellowish-brown. Baboons have a range of facial expressions they use to communicate with one another, from showing teeth in friendly gestures to lip-smacking and eyebrow-raising for social interactions. They live in large troops that have up to 150 individuals.

Length: 2.5 feet  
Height: 2 feet  
Location: Sub-Saharan Africa from savannas and grasslands to tropical forests and semi-arid deserts  
Dangerous? yes  
Hit Points: 759  
Health Points: 680  
Special Bonus: Hit modifier of 4

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 5

\*\*\*\*\*  
----- PRINT CREATURE STATISTICS -----

Here are the current stats of each creature:

| CREATURE | HIT PTS | HEALTH PTS | SPECIAL BONUS |
|----------|---------|------------|---------------|
|----------|---------|------------|---------------|

|               |     |     |                   |
|---------------|-----|-----|-------------------|
| Elephant Seal | 394 | 88  | No hit modifier   |
| Baboon        | 759 | 680 | Hit modifier of 4 |

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 1

\*\*\*\*\*  
----- ENTER CREATURES! -----

Would you like to (1)Load my creatures from a text file or (2)Enter one creature manually?

CHOOSE 1 or 2: 1

What is the name of the file with your list of creatures? (ex: filename.txt)

FILENAME: creatures.txt

7 creatures from creatures.txt have been added to the program!

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 1

\*\*\*\*\*  
----- ENTER CREATURES! -----

Sorry! You already are at the maximum capacity of 9 creatures.

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 5

\*\*\*\*\*  
----- PRINT CREATURE STATISTICS -----

Here are the current stats of each creature:

| CREATURE            | HIT PTS | HEALTH PTS | SPECIAL BONUS     |
|---------------------|---------|------------|-------------------|
| Elephant Seal       | 394     | 88         | No hit modifier   |
| Baboon              | 759     | 680        | Hit modifier of 4 |
| Beholder            | 1035    | 265        | Hit modifier of 8 |
| Banshee             | 745     | 543        | No hit modifier   |
| Troll               | 948     | 596        | Hit modifier of 5 |
| Mike Wazowski       | 395     | 947        | Hit modifier of 4 |
| Brandon Vandergriff | 948     | 654        | Hit modifier of 1 |
| April Crockett      | 12934   | 294        | Hit modifier of 5 |
| Jack Crockett       | 1       | 84958      | Hit modifier of 9 |

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 2

\*\*\*\*\*  
----- FIGHT! FIGHT! FIGHT! -----

Here is the list of creatures who are eligible to fight:

1) Elephant Seal, HIT: 394, HEALTH: 88

2) Baboon, HIT: 759, HEALTH: 680  
3) Beholder, HIT: 1035, HEALTH: 265  
4) Banshee, HIT: 745, HEALTH: 543  
5) Troll, HIT: 948, HEALTH: 596  
6) Mike Wazowski, HIT: 395, HEALTH: 947  
7) Brandon Vandergriff, HIT: 948, HEALTH: 654  
8) April Crockett, HIT: 12934, HEALTH: 294  
9) Jack Crockett, HIT: 1, HEALTH: 84958

FIRST FIGHTER (CHOOSE 1-9): 9

SECOND FIGHTER (CHOOSE 1-9): 2

>>>>>>>>> ROUND 1 <<<<<<<<<<

Jack Crockett hits Baboon with 64 hit points!  
Baboon now has 616 health points.

>>>>>>>>> ROUND 2 <<<<<<<<<<

Baboon hits Jack Crockett with 799 hit points!  
Jack Crockett now has 84159 health points.

>>>>>>>>> ROUND 3 <<<<<<<<<<

Baboon hits Jack Crockett with 787 hit points!  
Jack Crockett now has 83372 health points.

>>>>>>>>> ROUND 4 <<<<<<<<<<

Baboon hits Jack Crockett with 791 hit points!  
Jack Crockett now has 82581 health points.

>>>>>>>>> ROUND 5 <<<<<<<<<<

Baboon hits Jack Crockett with 795 hit points!  
Jack Crockett now has 81786 health points.

>>>>>>>>> ROUND 6 <<<<<<<<<<

Jack Crockett hits Baboon with 91 hit points!  
Baboon now has 525 health points.

>>>>>>>>> ROUND 7 <<<<<<<<<<

Baboon hits Jack Crockett with 795 hit points!  
Jack Crockett now has 80991 health points.

>>>>>>>>> ROUND 8 <<<<<<<<<<

Baboon hits Jack Crockett with 803 hit points!  
Jack Crockett now has 80188 health points.

>>>>>>>>> ROUND 9 <<<<<<<<<<

Jack Crockett hits Baboon with 73 hit points!  
Baboon now has 452 health points.

>>>>>>>>> ROUND 10 <<<<<<<<<<

Baboon hits Jack Crockett with 803 hit points!  
Jack Crockett now has 79385 health points.

>>>>>>>>> ROUND 11 <<<<<<<<<<

Baboon hits Jack Crockett with 803 hit points!  
Jack Crockett now has 78582 health points.

>>>>>>>>> ROUND 12 <<<<<<<<<<

Jack Crockett hits Baboon with 73 hit points!  
Baboon now has 379 health points.

>>>>>>>>> ROUND 13 <<<<<<<<<<

Baboon hits Jack Crockett with 803 hit points!  
Jack Crockett now has 77779 health points.

>>>>>>>>> ROUND 14 <<<<<<<<<<

Baboon hits Jack Crockett with 787 hit points!  
Jack Crockett now has 76992 health points.

>>>>>>>>> ROUND 15 <<<<<<<<<<

Baboon hits Jack Crockett with 795 hit points!  
Jack Crockett now has 76197 health points.

>>>>>>>>> ROUND 16 <<<<<<<<<<

Jack Crockett hits Baboon with 91 hit points!  
Baboon now has 288 health points.

>>>>>>>>> ROUND 17 <<<<<<<<<<

Jack Crockett hits Baboon with 73 hit points!  
Baboon now has 215 health points.



```
>>>>>>>> ROUND 8 <<<<<<<<<
Jack Crockett hits Beholder with 91 hit points!
Beholder now has 19 health points.
```

>>>>>>>> ROUND 9 <<<<<<<<<<

Jack Crockett hits Beholder with 64 hit points!  
Beholder now has -45 health points.  
Beholder's body is being removed from the arena.  
Jack Crockett IS THE WINNER!!!

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 4

\*\*\*\*\*  
----- PRINT CREATURES -----

Here is a detailed list of all the creatures who are eligible to fight:

----- CREATURE 1 -----

Name: Elephant Seal

Description:

Elephant seals are large marine mammals known for their size and the unique, trunk-like noses of adult males, which resemble an elephant's trunk (hence the name). There are two species: the Northern Elephant Seal and the Southern Elephant Seal. Males are much larger than females, and during breeding season, they engage in fierce battles for dominance.

Length: 20 feet  
Height: 4.5 feet  
Location: Pacific coast of North America or sub-Antarctic  
Dangerous? no  
Hit Points: 394  
Health Points: 88  
Special Bonus: No hit modifier

----- CREATURE 2 -----

Name: Banshee

Description:

The English Banshee is a fairy woman who wails when death is approaching. They do not cause death, only mourn it. Banshees are almost always female, and are usually seen with long, dark, black hair and pale cheeks. Their eyes also are usually red from crying.

Length: 1 feet  
Height: 7.6 feet  
Location: Ireland  
Dangerous? yes  
Hit Points: 745  
Health Points: 543  
Special Bonus: No hit modifier

----- CREATURE 3 -----

Name: Troll

Description:

Ugly and big. Smells bad like farts.

Length: 3 feet  
Height: 9.5 feet  
Location: Caves, forests, isolated areas of rocks, and the ocean  
Dangerous? no  
Hit Points: 948  
Health Points: 596  
Special Bonus: Hit modifier of 5

----- CREATURE 4 -----

Name: Mike Wazowski

Description:

One-eyed, funny green monster. A scare assistant to James P. Sullivan at Monsters, Inc. Mike doesn't want any interruptions in his life.

Length: 1 feet  
Height: 3 feet  
Location: Monstropolis

Dangerous? no  
Hit Points: 395  
Health Points: 947  
Special Bonus: Hit modifier of 4

----- CREATURE 5 -----

Name: Brandon Vandergriff

Description:

Likes long walks on the beach and -- wrong bio... my bad. He's usually either jamming on the bass, cooking, and drinking insane amounts of caffeine. His favorite bands are Dexter and the Moonrocks and Quarters of Change, but he will listen to anything. During his time at Tech, he was big into competing with the Esports Club.

Length: 1.45 feet  
Height: 8.45 feet  
Location: Bruner Hall Room 228  
Dangerous? yes  
Hit Points: 948  
Health Points: 654  
Special Bonus: Hit modifier of 1

----- CREATURE 6 -----

Name: April Crockett

Description:

She has many interests other than computing including working jigsaw puzzles, doing anything crafty, going to the movies, going to the zoo, hanging out with her family, her pets, Halloween, gardening, Guardians of the Galaxy (especially Drax), memes, AI-generated animals, girls trips with her sister, ATVs, archery, fishing (for small amounts of time), popcorn, Italian food, and gummy twin snakes.

Length: 2.45 feet  
Height: 4.2 feet  
Location: Bruner Hall Room 119  
Dangerous? yes  
Hit Points: 12934  
Health Points: 294  
Special Bonus: Hit modifier of 5

----- CREATURE 7 -----

Name: Jack Crockett

Description:

Fat white dog who loves to be petted and around his peeps.

Length: 3.5 feet  
Height: 2.3 feet  
Location: The Crockett House and sometimes on campus or at Cane Creek Park  
Dangerous? no  
Hit Points: 1  
Health Points: 70654  
Special Bonus: Hit modifier of 9

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 3

\*\*\*\*\*

----- DELETE CREATURE -----

The following is a list of all the creatures:

Elephant Seal  
Banshee  
Troll  
Mike Wazowski  
Brandon Vandergriff  
April Crockett  
Jack Crockett

What creature do you wish to remove?

CREATURE NAME: bum

Sorry, a creature by the name bum could not be found.

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 3

\*\*\*\*\*  
----- DELETE CREATURE -----

The following is a list of all the creatures:

Elephant Seal  
Banshee  
Troll  
Mike Wazowski  
Brandon Vandergriff  
April Crockett  
Jack Crockett

What creature do you wish to remove?

CREATURE NAME: Troll

You have removed Troll.

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 5

\*\*\*\*\*  
----- PRINT CREATURE STATISTICS -----

Here are the current stats of each creature:

| CREATURE            | HIT PTS | HEALTH PTS | SPECIAL BONUS     |
|---------------------|---------|------------|-------------------|
| Elephant Seal       | 394     | 88         | No hit modifier   |
| Banshee             | 745     | 543        | No hit modifier   |
| Mike Wazowski       | 395     | 947        | Hit modifier of 4 |
| Brandon Vandergriff | 948     | 654        | Hit modifier of 1 |
| April Crockett      | 12934   | 294        | Hit modifier of 5 |
| Jack Crockett       | 1       | 70654      | Hit modifier of 9 |

What would you like to do?

1. Enter some creatures
2. Fight! Fight! Fight!
3. Delete a creature
4. Print creatures to screen
5. Print creature stats
6. End Program.

ENTER 1-6: 6

Would you like to save your creature list to a file? (y or n) y

\*\*\*\*\*  
----- SAVE CREATURES TO FILE -----

What is the name of the file you want to save your creatures to?

FILENAME: creatures\_2.txt

Elephant Seal was saved to file.  
Banshee was saved to file.  
Mike Wazowski was saved to file.  
Brandon Vandergriff was saved to file.  
April Crockett was saved to file.

Jack Crockett was saved to file.  
6 creatures were successfully saved to the creatures\_2.txt file.

GOODBYE!