

Test Scenario

1. Normal flow:

1.1 Add 2 novices to the list: (Add John first, then Bob)

- Name = John , maxHp = 100 , attack = 15 , defense = 5
- Name = Bob , maxHp = 100 , attack = 15 , defense = 5

1.2 Show the list of novices

Expected output:

```
List of novices:  
0 - John | HP : 100 | Atk : 15 | Def : 5  
1 - Bob | HP : 100 | Atk : 15 | Def : 5
```

1.3 Simulate the fight between John and Bob. Let John takes action first

Expected output:

```
List of novices:  
0 - John | HP : 100 | Atk : 15 | Def : 5  
1 - Bob | HP : 100 | Atk : 15 | Def : 5
```

```
Choose two novices to fight : 0 1  
A fight begins between John and Bob
```

```
John deals damage to Bob.  
Bob's current HP is 90.  
Bob deals damage to John.  
John's current HP is 90.
```

```
John deals damage to Bob.  
Bob's current HP is 80.  
Bob deals damage to John.  
John's current HP is 80.
```

```
John deals damage to Bob.  
Bob's current HP is 70.  
Bob deals damage to John.  
John's current HP is 70.
```

```
John deals damage to Bob.  
Bob's current HP is 60.  
Bob deals damage to John.  
John's current HP is 60.
```

```
John deals damage to Bob.  
Bob's current HP is 50.  
Bob deals damage to John.  
John's current HP is 50.
```

```
John deals damage to Bob.  
Bob's current HP is 40.  
Bob deals damage to John.
```

```
John's current HP is 40.  
  
John deals damage to Bob.  
Bob's current HP is 30.  
Bob deals damage to John.  
John's current HP is 30.  
  
John deals damage to Bob.  
Bob's current HP is 20.  
Bob deals damage to John.  
John's current HP is 20.  
  
John deals damage to Bob.  
Bob's current HP is 10.  
Bob deals damage to John.  
John's current HP is 10.  
  
John deals damage to Bob.  
Bob's current HP is 0.  
  
John wins.
```

1.4 Show list of novices again

Expected output:

```
List of novices:  
0 - John | HP : 100 | Atk : 15 | Def : 5
```

1.5 Add 1 novice to the list:

- Name = Sara, maxHp = 100 , attack = 12 , defense = 5

1.6 Simulate the fight between John and Sara. Let John takes action first

Expected output:

```
List of novices:  
0 - John | HP : 100 | Atk : 15 | Def : 5  
1 - Sara | HP : 100 | Atk : 12 | Def : 5  
  
Choose two novices to fight : 0 1  
A fight begins between John and Sara  
  
John deals damage to Sara.  
Sara's current HP is 90.  
Sara deals damage to John.  
John's current HP is 93.  
  
John deals damage to Sara.  
Sara's current HP is 80.  
Sara deals damage to John.  
John's current HP is 86.  
  
John deals damage to Sara.  
Sara's current HP is 70.
```

```
Sara deals damage to John.  
John's current HP is 79.
```

```
John deals damage to Sara.  
Sara's current HP is 60.  
Sara deals damage to John.  
John's current HP is 72.
```

```
John deals damage to Sara.  
Sara's current HP is 50.  
Sara deals damage to John.  
John's current HP is 65.
```

```
John deals damage to Sara.  
Sara's current HP is 40.  
Sara deals damage to John.  
John's current HP is 58.
```

```
John deals damage to Sara.  
Sara's current HP is 30.  
Sara deals damage to John.  
John's current HP is 51.
```

```
John deals damage to Sara.  
Sara's current HP is 20.  
Sara deals damage to John.  
John's current HP is 44.
```

```
John deals damage to Sara.  
Sara's current HP is 10.  
Sara deals damage to John.  
John's current HP is 37.
```

```
John deals damage to Sara.  
Sara's current HP is 0.
```

```
John wins.
```

1.7 Add 1 mage to the list:

- Name = Harry, maxHp = 90, attack = 12, defense = 3

1.8 Simulate the fight between Harry and John. Let Harry takes action first

Expected output:

```
List of novices:  
0 - John | HP : 100 | Atk : 15 | Def : 5  
1 - Harry | HP : 90 | Atk : 12 | Def : 3
```

```
Choose two novices to fight : 1 0  
A fight begins between Harry and John
```

```
Harry deals damage to John.  
John's current HP is 86.  
John deals damage to Harry.  
Harry's current HP is 78.
```

```
Harry deals damage to John.  
John's current HP is 72.  
John deals damage to Harry.  
Harry's current HP is 66.  
  
Harry deals damage to John.  
John's current HP is 58.  
John deals damage to Harry.  
Harry's current HP is 54.  
  
Harry deals damage to John.  
John's current HP is 44.  
John deals damage to Harry.  
Harry's current HP is 42.  
  
Harry deals damage to John.  
John's current HP is 30.  
John deals damage to Harry.  
Harry's current HP is 30.  
  
Harry deals damage to John.  
John's current HP is 16.  
John deals damage to Harry.  
Harry's current HP is 18.  
  
Harry deals damage to John.  
John's current HP is 2.  
John deals damage to Harry.  
Harry's current HP is 6.  
  
Harry deals damage to John.  
John's current HP is 0.  
  
Harry wins.
```

1.9 Add 1 novice to the list:

- Name = James , maxHp = 100, attack = 16 , defense = 6

1.10 Simulate the fight between Harry and James. Let Harry takes action first

Expected output:

```
List of novices:  
0 - Harry | HP : 90 | Atk : 12 | Def : 3  
1 - James | HP : 100 | Atk : 16 | Def : 6  
  
Choose two novices to fight : 0 1  
A fight begins between Harry and James  
  
Harry deals damage to James.  
James's current HP is 88.  
James deals damage to Harry.  
Harry's current HP is 77.  
  
Harry deals damage to James.  
James's current HP is 76.  
James deals damage to Harry.
```

```
Harry's current HP is 64.

Harry deals damage to James.
James's current HP is 64.
James deals damage to Harry.
Harry's current HP is 51.

Harry deals damage to James.
James's current HP is 52.
James deals damage to Harry.
Harry's current HP is 38.

Harry deals damage to James.
James's current HP is 40.
James deals damage to Harry.
Harry's current HP is 25.

Harry deals damage to James.
James's current HP is 28.
James deals damage to Harry.
Harry's current HP is 12.

Harry deals damage to James.
James's current HP is 16.
James deals damage to Harry.
Harry's current HP is 0.

James wins.
```

1.11 Add 1 summoner to the list:

- Name = Ash, maxHp = 100, attack = 12, defense = 2

1.12 Simulate the fight between Ash and James. Let Ash takes action first

Expected output:

```
List of novices:
0 - James | HP : 100 | Atk : 16 | Def : 6
1 - Ash | HP : 100 | Atk : 12 | Def : 2

Choose two novices to fight : 1 0
A fight begins between Ash and James

Ash deals damage to James.
James's current HP is 86.
James deals damage to Ash.
Ash's current HP is 94.

Ash deals damage to James.
James's current HP is 72.
James deals damage to Ash.
Ash's current HP is 88.

Ash deals damage to James.
James's current HP is 58.
James deals damage to Ash.
Ash's current HP is 82.
```

```
Ash deals damage to James.  
James's current HP is 52.  
James deals damage to Ash.  
Ash's current HP is 68.  
  
Ash deals damage to James.  
James's current HP is 46.  
James deals damage to Ash.  
Ash's current HP is 54.  
  
Ash deals damage to James.  
James's current HP is 40.  
James deals damage to Ash.  
Ash's current HP is 40.  
  
Ash deals damage to James.  
James's current HP is 34.  
James deals damage to Ash.  
Ash's current HP is 26.  
  
Ash deals damage to James.  
James's current HP is 28.  
James deals damage to Ash.  
Ash's current HP is 12.  
  
Ash deals damage to James.  
James's current HP is 14.  
James deals damage to Ash.  
Ash's current HP is 6.  
  
Ash deals damage to James.  
James's current HP is 0.  
  
Ash wins.
```

1.13 Show the list

Expected output:

```
List of novices:  
0 - Ash | HP : 100 | Atk : 20 | Def : 10
```

1.14 Choose fight “f” menu.

Expected output:

```
List of novices:  
0 - Ash | HP : 100 | Atk : 20 | Def : 10  
There are not enough novices to fight.
```

2. Constructor input is negative or zero

2.1 Restart the program.

2.2 Add 2 novices to the list :

- Name = Alpha , hp = -8 , attack = 0 , defense = 0
- Name = Beta , hp = 8 , attack = -1 , defense = -1

2.3 Show list of novices:

Expected output :

```
List of novices:
0 - Alpha | HP : 1 | Atk : 1 | Def : 1
1 - Beta | HP : 8 | Atk : 1 | Def : 1
```

2.4 Add 1 summoner to the list :

- Name = Green , hp = -8 , attack = 0 , defense = 8

2.5 Show list of novices:

Expected output :

```
List of novices:
0 - Alpha | HP : 1 | Atk : 1 | Def : 1
1 - Beta | HP : 8 | Atk : 1 | Def : 1
2 - Green | HP : 1 | Atk : 1 | Def : 8
```

3. Invalid menu input

3.1 If you add a new novice with an invalid number for class selection, the program should print "Wrong input" to the console

Expected output :

```
1 - Add Novice
2 - Add Mage
3 - Add Summoner

Choose a class : 0
Wrong input
```

- 3.2 If you try to simulate the fight with an invalid pair of novices, the program should print “This novice isn’t available.”

Expected output :

```
List of novices:
0 - Alpha | HP : 1 | Atk : 1 | Def : 1
1 - Beta  | HP : 8 | Atk : 1 | Def : 1
2 - Green | HP : 1 | Atk : 1 | Def : 8

Choose two novices to fight : 2 3
This novice isn't available.
```

4. Terminate the program

- 4.1 Choose quit “q” menu then the program should terminate