



Viking Simulation Project: Week One Highlights

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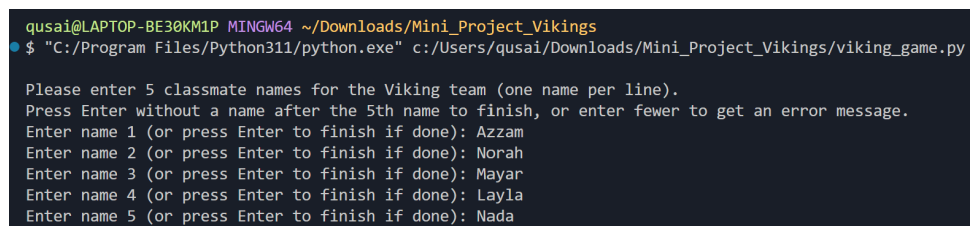
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Introduction

This report presents the results of the bonus task and the successful test outputs for the Viking Project during Week One. The bonus task involved running **viking_game.py**, which simulates a battle between Vikings and Saxons. Additionally, the report includes the outcomes of four test scripts **1-testsSoldier.py**, **2-testsVikings.py**, **3-testsSaxons.py**, and **4-testsWar.py** which verify the functionality of different components of the project.

Output Analysis:

- **Image 1: Inputting Classmate Names**



```
qusai@LAPTOP-BE30KM1P MINGW64 ~/Downloads/Mini_Project_Vikings
$ "C:/Program Files/Python311/python.exe" c:/Users/qusai/Downloads/Mini_Project_Vikings/viking_game.py

Please enter 5 classmate names for the Viking team (one name per line).
Press Enter without a name after the 5th name to finish, or enter fewer to get an error message.
Enter name 1 (or press Enter to finish if done): Azzam
Enter name 2 (or press Enter to finish if done): Norah
Enter name 3 (or press Enter to finish if done): Mayar
Enter name 4 (or press Enter to finish if done): Layla
Enter name 5 (or press Enter to finish if done): Nada
```

This screenshot shows the initial interactive prompt in **viking_game.py**, where I entered the names “Azzam,” “Norah,” “Mayar,” “Layla,” and “Nada” as my classmates for the Viking team. The game ensures exactly five names are provided before proceeding, ensuring a personalized experience.

- **Image 2: Initial Team Statistics**

```
Welcome to the Viking vs. Saxon Epic Battle!

Viking Warriors Stats:
- Azzam: Health = 100, Strength = 35
- Norah: Health = 100, Strength = 43
- Mayar: Health = 100, Strength = 58
- Layla: Health = 100, Strength = 16
- Nada: Health = 100, Strength = 18

Saxon Defenders Stats:
- Saxon 1: Health = 100, Strength = 45
- Saxon 2: Health = 100, Strength = 77
- Saxon 3: Health = 100, Strength = 81
- Saxon 4: Health = 100, Strength = 80
- Saxon 5: Health = 100, Strength = 29
```

This image displays the starting stats for both the Viking and Saxon teams after entering the names. The Vikings (Azzam, Norah, Mayar, Layla, Nada) each have 100 health and random strengths (e.g., 35, 43, 58, 16, 18), while the Saxons have 100 health and strengths like 45, 77, 81, 80, and 29, setting the stage for the battle.

- **Image: Viking vs. Saxon Battle Progression (Turns 1–10)**

```
=== Turn 1 ===
Viking Charge! A Viking swings their axe...
A Saxon has received 35 points of damage
Saxon Counterattack! A Saxon thrusts their spear...
Nada has received 81 points of damage
Viking Army: 5 warriors remain, Saxon Army: 5 warriors remain
Vikings and Saxons are still in the thick of battle.

=== Turn 2 ===
Viking Charge! A Viking swings their axe...
A Saxon has received 18 points of damage
Saxon Counterattack! A Saxon thrusts their spear...
Azzam has received 45 points of damage
Viking Army: 5 warriors remain, Saxon Army: 5 warriors remain
Vikings and Saxons are still in the thick of battle.

=== Turn 3 ===
Viking Charge! A Viking swings their axe...
A Saxon has received 35 points of damage
Saxon Counterattack! A Saxon thrusts their spear...
Mayar has received 45 points of damage
Viking Army: 5 warriors remain, Saxon Army: 5 warriors remain
Vikings and Saxons are still in the thick of battle.

=== Turn 4 ===
Viking Charge! A Viking swings their axe...
A Saxon has received 43 points of damage
Saxon Counterattack! A Saxon thrusts their spear...
Azzam has died in act of combat
Viking Army: 4 warriors remain, Saxon Army: 5 warriors remain
Vikings and Saxons are still in the thick of battle.

=== Turn 5 ===
Viking Charge! A Viking swings their axe...
A Saxon has received 58 points of damage
Saxon Counterattack! A Saxon thrusts their spear...
Norah has received 80 points of damage
Viking Army: 4 warriors remain, Saxon Army: 5 warriors remain
Vikings and Saxons are still in the thick of battle.
```

```
=== Turn 6 ===
Viking Charge! A Viking swings their axe...
A Saxon has received 18 points of damage
Saxon Counterattack! A Saxon thrusts their spear...
Mayar has died in act of combat
Viking Army: 3 warriors remain, Saxon Army: 5 warriors remain
Vikings and Saxons are still in the thick of battle.

=== Turn 7 ===
Viking Charge! A Viking swings their axe...
A Saxon has died in combat
Saxon Counterattack! A Saxon thrusts their spear...
Nada has died in act of combat
Viking Army: 2 warriors remain, Saxon Army: 4 warriors remain
Vikings and Saxons are still in the thick of battle.

=== Turn 8 ===
Viking Charge! A Viking swings their axe...
A Saxon has received 16 points of damage
Saxon Counterattack! A Saxon thrusts their spear...
Layla has received 81 points of damage
Viking Army: 2 warriors remain, Saxon Army: 4 warriors remain
Vikings and Saxons are still in the thick of battle.

=== Turn 9 ===
Viking Charge! A Viking swings their axe...
A Saxon has received 16 points of damage
Saxon Counterattack! A Saxon thrusts their spear...
Norah has died in act of combat
Viking Army: 1 warriors remain, Saxon Army: 4 warriors remain
Vikings and Saxons are still in the thick of battle.

=== Turn 10 ===
Viking Charge! A Viking swings their axe...
A Saxon has received 16 points of damage
Saxon Counterattack! A Saxon thrusts their spear...
Layla has died in act of combat
Viking Army: 0 warriors remain, Saxon Army: 4 warriors remain
Saxons have fought for their lives and survive another day...
```

```
=== Battle Concluded! ===
SURVIVAL FOR THE SAXONS! The Saxons cheer, battered but alive, under a stormy sky...
```

This screenshot or sequence captures the full progression of the Viking versus Saxon battle over 10 turns, as generated by `viking_game.py`. Starting with both armies at 5 warriors each, the battle begins with Vikings and Saxons exchanging attacks. Turn 1 shows a Viking dealing 35 points of damage to a Saxon, and a Saxon counterattacking Norah for 81 damage. The battle continues with random attacks, reducing army sizes: Azzam dies in Turn 4 (“Azzam has died in act of combat”), Mayar in Turn 6 (“Mayar has died in act of combat”), and Nada in Turn 7 (“Nada has died in act of combat”). By Turn 10, all Vikings are defeated (e.g., “Layla has died in an act of combat”), leaving the Saxon army with 4 warriors. The output includes descriptive messages like “Viking Charge! A Viking swings their axe...” and “Saxon Counterattack! A Saxon thrusts their spear...”, tracking damage, army sizes (e.g., “Viking Army: 5 warriors remain, Saxon Army: 5 warriors remain”), and status (e.g., “Vikings and Saxons are still in the thick of battle.”). The battle concludes with the message “Saxons have fought for their lives and survived another day...” and a celebratory note: “SURVIVAL FOR THE SAXONS! The Saxons cheer, battered but alive, under a stormy sky...”

- **Test Results: Verification of Viking Project Components.**

When **all tests pass**, the terminal displays the following message: “**OK**”

```
C:\Users\qusai\Downloads\Mini_Project_Vikings>python 1-testsSoldier.py
.....
-----
Ran 10 tests in 0.001s

OK

C:\Users\qusai\Downloads\Mini_Project_Vikings>python 2-testsVikings.py
.....
-----
Ran 15 tests in 0.002s

OK

C:\Users\qusai\Downloads\Mini_Project_Vikings>python 3-testsSaxons.py
.....
-----
Ran 12 tests in 0.001s

OK

C:\Users\qusai\Downloads\Mini_Project_Vikings>python 4-testsWar.py
...{'vikingArmy': [<vikingsClasses.Viking object at 0x000001F687267ED0>], 'saxonArmy': [<vikingsClasses.Saxon object at 0x000001F68737C750>]}
.....
-----
Ran 26 tests in 0.003s

OK

C:\Users\qusai\Downloads\Mini_Project_Vikings>
```