



FIT9133 Assignment - 1

War Zone!!!

A Simple Combat Simulator
with Python Programming
Semester 2 2018

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War Zone!!! - Basic Version

Introduction

War Zone's basic version is a simple battle simulator where one army fights against another army. In this game there are basically two modes:

- Single Mode
- Battle Mode

Single Mode

Here the commander fights against the computer.

Battle Mode

Here the commander fights against the computer.

At the start of the game, each commander is given a starting total of \$10. Units are purchased and stored in their army. The commander may spend as much or as little of their money as they desire. After the armies are assembled, the units are then made to fight each other in the order they were purchased in. Each unit in the standard game cost \$1.

There are three types of units available:

- Archer
- Soldier
- Knight

Each unit has a weakness and a strength. Archers are good against Soldiers but are terrible against Knights. Soldiers are good against Knights but can't win against Archers. Knights beat Archers but fall short against Soldiers. If a unit comes up against a unit of same type, both lose. Table 1 indicates who wins in any encounter.

	Archer	Soldier	Knight
Archer	Tie	Archer	knight
Soldier	Archer	Tie	Soldier
Knight	Knight	Soldier	Tie

Table 1

Note : It is highly recommended that you play the game in full screen

Game Play

Once you start running the game. Initially you would be taken to a welcome screen like in Fig 1



Fig 1

Now Press Enter to continue. Once you have pressed Enter it will take you to the Game Menu which will look like Fig 2

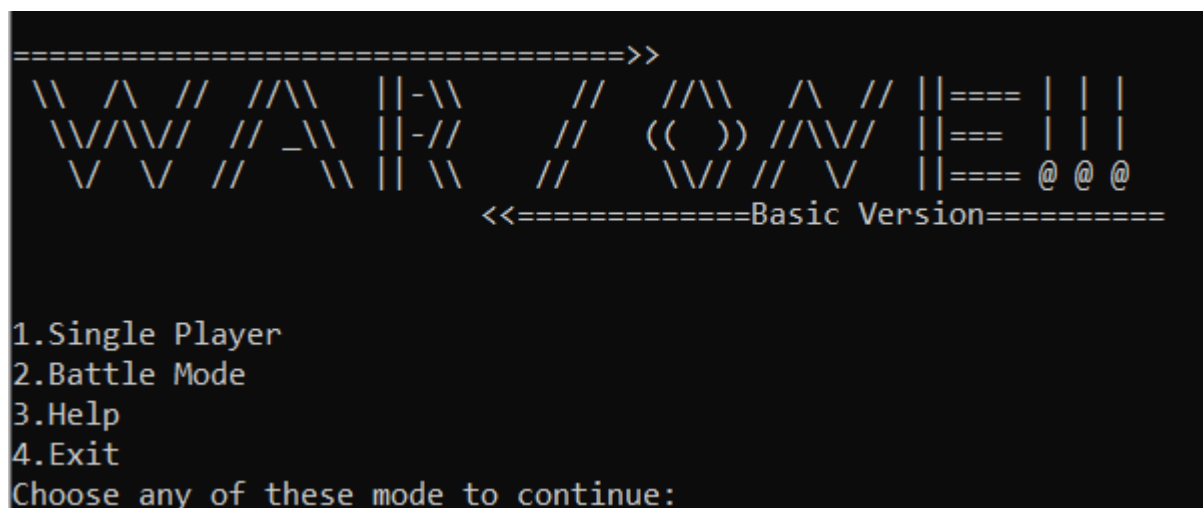


Fig 2

Here the various game modes are available like

- Single Player
- Battle Mode

Single Player

In this mode the commander will choose his army and fight against the computer. From main menu as in Fig 2. If we press 1 we will enter single player mode. Which will look like Fig 3

```

=====>>
\\  ^  //  //\\  ||-\\  //  //\\  ^  //  ||==== | | |
\\^\\^\\  //  _\\  ||-//  //  (( )) //\\^\\  ||=== | | |
  ^  ^  //  _\\  ||  \\  //  \\^\\  //  ^  ||==== @ @ @
                                     <<=====Basic Version=====

Enter Player  Details
Player Name :

```

Fig 3

Here the player will enter his details like player name and press ENTER. Which will take you to the player army selection page which will look like Fig 4

```

=====>>
\\  ^  //  //\\  ||-\\  //  //\\  ^  //  ||==== | | |
\\^\\^\\  //  _\\  ||-//  //  (( )) //\\^\\  ||=== | | |
  ^  ^  //  _\\  ||  \\  //  \\^\\  //  ^  ||==== @ @ @
                                     <<=====Basic Version=====

Player Details
-----
Player Name : Jaimon TT
Money Left : $10
Player Army :

Available Army Units Are
  0  \      0  ^      0
  /|\--)->  /|\|      /X\--+==>
  |  /      |  |      X
  / \      / \      / \
Archer    Soldier    Knight
Cost:1$    Cost:1$    Cost:1$
-----
UnitID:1   UnitID:2   UnitID:3

Press q if you are done with all the purchasing
Press h for help regarding units

Enter the desired army unit ID that you wish to purchase:

```

Fig 4

Here all the details of the player are been shown like players name, money left and army. Also, all the available army units which are available for purchasing is also been shown like archer, soldier and knight. Along with their cost and unit ID. If we require more details regarding these units like archer has advantage over which unit.

All these details are available in help. To access help regarding units, press h. This will take us to the help screen regarding the units. Which will look like Fig 5

```

=====>>
\\  /\  //  //\\  ||-\\  //  /\  /\  //  ||==== | | |
\\//\\//  //  _\\  ||-//  //  (( )) //\\//  ||==== | | |
  \  \  //  _\\  ||  \\  //  \\//  //  \  ||==== @ @ @
                                     <<=====Basic Version=====

0  \
/|\--)->
|  /
/\ 
Archer
Cost:1$
-----
UnitID:1

Archer has an advantage over Soldier units

0  ^
/|\|
|  |
/\ 
Soldier
Cost:1$
-----
UnitID:2

Soldier has an advantage over Knight units

0
/X\--+==>
X
/\ 
Knight
Cost:1$
-----
UnitID:3

Knight has an advantage over Archer units

Press Enter to continue

```

Fig 5

From here Press ENTER to continue back to the previous screen. That is Fig 4

To purchase a unit, we can press their respective unit ID and press enter. Once the unit has been purchased their respective cost is also been deducted from the player money. You can only purchase as many units as much as you have money. Also, you can see that the unit that you have purchased has been added to you army.

For example, if you buy an archer and a soldier your screen will look like Fig 6

```

=====>>
\\  /\  //  /\  ||-\\  //  /\  /\  //  ||==== | | |
\\/\  //  _\\  ||-//  //  (( )) /\  //  ||==== | | |
  \  //  _\\  ||  \  //  \  //  \  //  ||==== @ @ @
                                     <<=====Basic Version=====

Player Details
-----
Player Name : Jaimon TT
Money Left : $8
Player Army :
  0 \      0 ^
  /|\--)->  /|\|
  | /      | |
  / \      / \
Archer     Soldier

Available Army Units Are
  0 \      0 ^      0
  /|\--)->  /|\|      /X\--+==>
  | /      | |      X
  / \      / \      / \
Archer     Soldier   Knight
Cost:1$    Cost:1$    Cost:1$
-----
UnitID:1   UnitID:2   UnitID:3

Press q if you are done with all the purchasing
Press h for help regarding units
Press r to remove last unit

Enter the desired army unit ID that you wish to purchase:

```

Fig 6

Here since you have purchased two units and since both the units have a cost of 1\$. The total player money left over is been updated to 8\$.

Now we can see that a new option r is available. If we press r the recently purchased unit is been removed from your army unit. Also, your player money is also been updated. For example, if you press r now the soldier that you had purchased is been removed and player money is been updated back to 9\$ like in Fig 7

```

=====>>
\\ /\ // /\ \ ||-\ \ // /\ \ /\ // ||==== | | |
\\ /\ \ // _\ \ ||-// // (( )) /\ \ // ||=== | | |
  \ \ // - \ \ || \ \ // \ \ // \ \ ||==== @ @ @
                                     <<=====Basic Version=====

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
 /|\-->->
  | /
 / \
Archer

Available Army Units Are
  0 \      0 ^      0
 /|\-->->  /|\|     /X\--+==>
  | /      | |      X
 / \      / \      / \
Archer    Soldier  Knight
Cost:1$    Cost:1$   Cost:1$
-----
UnitID:1   UnitID:2  UnitID:3

Press q if you are done with all the purchasing
Press h for help regarding units
Press r to remove last unit

Enter the desired army unit ID that you wish to purchase:

```

Fig 7

Once you have completed purchasing your units you can move forward to next option by pressing q.

Here you would be asked to enter the opponents name. Which will look like Fig 8


```

=====>>
\\ /\ // /\ \ ||-\ \ // /\ \ /\ // ||==== | | |
\\ /\ \ // - \ ||-// // ( ( ) ) /\ \ // ||=== | | |
  \ \ // - \ || \ \ // \ \ // \ \ ||==== @ @ @
                                <<=====Basic Version=====

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
 /|\-->->
  | /
 / \
Archer

Available Army Units Are
  0 \      0 ^      0
 /|\-->->  /|\|      /X\--+==>
  | /      | |      X
 / \      / \      / \
Archer    Soldier  Knight
Cost:1$    Cost:1$   Cost:1$
-----
UnitID:1   UnitID:2   UnitID:3

Press q if you are done with all the purchasing
Press h for help regarding units
Press r to remove last unit

Enter the desired army unit ID that you wish to purchase:q
Please Enter the name of your opponent :

```

Fig 8

Once you enter the opponents name and press enter randomly an army for your opponent is been created and you would be taken to a fighting screen menu. Which will look like Fig 9

```

=====>>
\\ /\ // /\ \ ||-\ \ // /\ \ /\ // ||==== | | |
\\ /\ // /\ \ ||-\ \ // ( ( ) ) /\ // ||==== | | |
\\ /\ // /\ \ ||-\ \ // // // // // // ||==== @ @ @
<<=====Basic Version=====

Current Army Status of Players

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
  /\-->->
  | /
  /\
  Archer

Player Details
-----
Player Name : Danger
Money Left : $1
Player Army :
  0 ^      0 \      0 \      0      0 ^      0      0 \      0      0 \
  /\|      /\-->-> /\-->-> /X\--+==> /\|      /X\--+==> /\-->-> /X\--+==> /\-->->
  | |      | /      | /      x      | |      x      | /      x      | /
  /\      /\      /\      /\      /\      /\      /\      /\      /\
  Soldier  Archer  Archer  Knight  Soldier  Knight  Archer  Knight  Archer

Match Menu
-----
1.Start Fight
2.Instant Result
3.Fight Summary
4.Go back to Previous menu
5.Exit
Please select Any of the above choices:

```

Fig 9

In this Page various methods is which you can watch the fight is been shown like

- Start Fight
- Instant Result
- Fight Summary

Start Fight

If we press 1 and then Enter we will go into this mode. In this mode each time a unit of player 1's unit faces computers unit. A detailed description about the fight sequence is been displayed. Also, a prompt is been asked to the user to continue the fight. Like in Fig 10

```

Please select Any of the above choices: 1

-----Fighting Begins Here -----

Current Army Status of Players

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
 /|\-->->
  | /
 / \
Archer

Player Details
-----
Player Name : Danger
Money Left : $1
Player Army :
  0 ^      0 \      0 \      0      0 ^      0      0 \      0      0 \
 /|\|      /|\-->-> /|\-->-> /X\-->==> /|\|      /X\-->==> /|\-->-> /X\-->==> /|\-->->
  ||      | /      | /      x      ||      x      | /      x      | /
 / \      / \      / \      / \      / \      / \      / \      / \      / \
Soldier   Archer   Archer   Knight   Soldier   Knight   Archer   Knight   Archer

  0 \      \ \      //      ^ 0
 /|\-->->  \ \      //      |||\
  | /      \ \      //      | |
 / \      \ \      //      / \
Archer      \ \      //      Soldier

Since Archer has an advantage over Soldier
Jaimon TT's Archer kills Danger's Soldier

Press Enter to continue

```

Fig 10

Once the user presses Enter the next unit of the dead unit's army faces the opposition unit and each time the army is been updated with the available units.

Like in fig 11 for the above fight.

```

Current Army Status of Players

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
 /|\--)->
  | /
 / \
Archer

Player Details
-----
Player Name : Danger
Money Left : $1
Player Army :
  0 \      0 \      0      0 ^      0      0 \      0      0 \
 /|\--)-> /|\--)-> /X\--+==> /|\|      /X\--+==> /|\--)-> /X\--+==> /|\--)->
  | /      | /      X      | |      X      | /      X      | /
 / \      / \      / \      / \      / \      / \      / \      / \
Archer    Archer    Knight  Soldier  Knight  Archer    Knight  Archer

  0 \      \ \      //      / 0
 /|\--)-> \ \      //      <-(--/|\
  | /      \ \      //      \ |
 / \      \ \      //      / \
Archer    \ \      //      Archer

Here since both of the units are Archer. None of the units has a clear advantage.
So both of them dies

Press Enter to continue

```

Fig 11

Once the entire army of the any of the user is over the war gets over and the other user is been declared as the winner like in Fig 12

```

Player Danger Wins!!!

Press Enter to continue

```

Fig 12

From Here if we press Enter we would again be taken back to the Fighting menu in Fig 9.

Instant Result

From menu in Fig 9 If we press 2 we will enter this mode. In this mode as the name itself suggest all the match details is been skipped and we will get an instant result about who is the winner of the war. Like in Fig 13

```

=====>>
\\ /\ // //\\ ||-\\ // //\\ /\ // ||==== | | |
\\//\\// // -\\ ||-// // (( )) //\\// ||==== | | |
V V // -\\ || \\ // \\// // V ||==== @ @ @
<<=====Basic Version=====

Current Army Status of Players

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
 /|\-->->
  | /
 / \
Archer

Player Details
-----
Player Name : Danger
Money Left : $1
Player Army :
  0 ^      0 \      0 \      0      0 ^      0      0 \      0      0 \
 /|\      /|\-->-> /|\-->-> /X\--+==> /|\      /X\--+==> /|\-->-> /X\--+==> /|\-->->
  | |      | /      | /      x      | |      x      | /      x      | /
 / \      / \      / \      / \      / \      / \      / \      / \
Soldier  Archer  Archer  Knight  Soldier  Knight  Archer  Knight  Archer
-----

Match Menu
-----
1.Start Fight
2.Instant Result
3.Fight Summary
4.Go back to Previous menu
5.Exit
Please select Any of the above choices: 2

Player Danger Wins!!!

Press Enter to continue

```

Fig 13

From Here if we press Enter we would again be taken back to the Fighting menu in Fig 9.

Fight Summary

From the menu in Fig 9. If you press 3 we will enter this mode. In this mode the entire fight details are been shown without any prompt been asked from the user. Like in Fig 14

```

  0 \      \ \      //      _____      ^ 0
 /|\--)->  \ \      //      //      _____      |/\
 | /      \ \      //      //      _____      | |
 / \      \ \      //      //      _____      / \
Archer      \ \      //      //      _____      Soldier

Since Archer has an advantage over Soldier
Jaimon TT's Archer kills Danger's Soldier

Current Army Status of Players

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
 /|\--)->
 | /
 / \
Archer

Player Details
-----
Player Name : Danger
Money Left : $1
Player Army :
  0 \      0 \      0      0 ^      0      0 \      0      0 \
 /|\--)-> /|\--)-> /X\--+==> /|\| /X\--+==> /|\--)-> /X\--+==> /|\--)->
 | /      | /      X      | |      X      | /      X      | /
 / \      / \      / \      / \      / \      / \      / \      / \
Archer    Archer    Knight    Soldier    Knight    Archer    Knight    Archer

  0 \      \ \      //      _____      / 0
 /|\--)->  \ \      //      //      _____      <-(--/|\
 | /      \ \      //      //      _____      \ |
 / \      \ \      //      //      _____      / \
Archer      \ \      //      //      _____      Archer

Here since both of the units are Archer. None of the units has a clear advantage.
So both of them dies

Player Danger Wins!!!

Press Enter to continue

```

Fig 14

From Here if we press Enter we would again be taken back to the Fighting menu in Fig 9.

From menu in Fig 9 if we press 4 we would be taken back to previous main menu in Fig 2

From menu in Fig 9 if we press 5 we can exit from the game.

Battle Mode

From main menu as in Fig 2. If we press 2 we will enter battle mode. Which will look like Fig 15

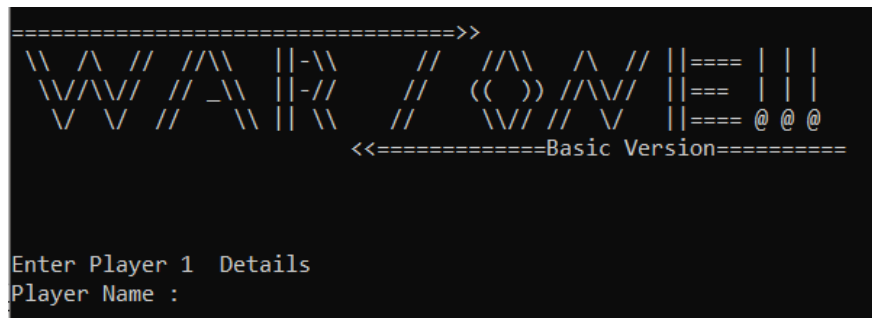


Fig 15

Here the player 1 will enter his details like player name and press Enter. Which will take you to the player army selection page same as in Fig 4 in Single player

Once player 1 army is been selected we would be taken to a new page where we can enter the details of the player 2. Which will look like Fig 16

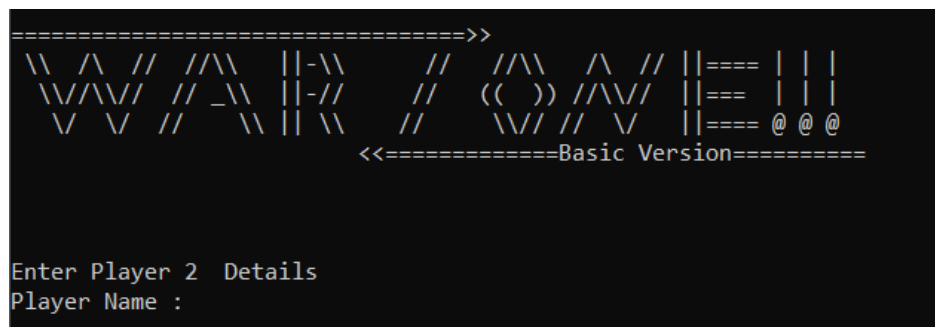


Fig 16

Here the player 2 will enter his details like player name and press Enter. Which will take you to the fight menu in as in Fig 9 for single player.

From here onwards everything is same as the single player only difference is that instead of the random army selected by the computer you will be fighting player 2's army.

From Fig 2 menu If we press 3 we will go into help screen where we will get all the details regarding the various game modes which will look like Fig17

```

=====>>
\\  ^  //  //\\  ||-\\  //  //\\  ^  //  ||=== | | |
\\//\\//  //  -\\  ||-//  //  (( )) //\\//  ||=== | | |
  ^  ^  //  -\\  ||  \\  //  \\//  //  ^  ||=== @ @ @
                                <<=====Basic Version=====

Game Modes
-----
Various Game modes are
1)Single Player
2)Battle Mode

Single Player
-----
In this mode user will be fighting against the Computer

Battle Mode
-----
In this mode two users will be fighting each other.

Press Enter to continue

```

Fig 17

War Zone!!! - Extended Version

Introduction

War Zone's basic version is a simple battle simulator where one army fights against another army. In this game there are basically two modes:

- Single Mode
- Battle Mode

Single Mode

Here the commander fights against the computer.

Battle Mode

Here the commander fights against another commander.

At the start of the game, each commander is given a starting total of \$10. Units are purchased and stored in their army. The commanders may spend as much or as little of their money as they desire. After the Armies are assembled, the units are then made to fight each other in the order they were purchased in.

In this version the user can provide various upgrades to the basic version as per his wish like

- The Improved Combat
- Health
- Medics
- Users prompt Medics
- Expanded Armies

The Improved Combat

If this mode is been enabled, then

- In the cases where a unit would win, it instead deals its damage before the other unit is able to deal theirs. Soldiers hit Knights first, Archers hit Soldiers first, and Knights hit Archers first.
- Knights can trample other units. If the Knight is fighting an Archer and the unit behind the Archer is another Archer, then the knight deals its damage to both Archers
- If an Archer is at the front of its army but not in battle, they deal their damage to the opposing unit if they are still alive at the end of the combat.

The changes made here effectively change the order of combat which may impact further based on choices below

Health

Units have health rather than just losing by fighting. Knights have 3 health, Soldiers have 2, and Archers have 1. Each unit now deals damage based on who they have

an advantage over. If the unit has the advantage, they deal 3 damage, if the unit has the disadvantage, they deal 1, and if the unit has no advantage or disadvantage, they deal 2.

Medics

Money remaining after the purchasing of armies will be used to hire and outfit medics. When a unit dies, it will be returned to the pool at the back of the army. Each time this happens, supplies for the medics decreases. Once the medics have no supplies left, they will be unable to save any more units.

Medics are hired and supplied at \$1 per unit. All money at the end of army creation is spent on Medics.

Users prompt Medics

Same as Medics only difference is that in medics all the left-over money is applied to medics by default. Here the user is given the choice to decide whether they wish to revive the current dead unit or not based on that money is been spend.

Extended Army

If this mode is been enabled, then the commander gets two new units to choose from:

- Siege Equipment -- Who win against everyone except Knights and Wizards. Cost of this unit is 1\$ and health is 3
- Wizard -- Who can beat anything, but they can't dodge Archers arrows. Cost of this unit is 2\$ and health is 3

Here I had given cost of siege as 1\$ and cost of Wizard as 2\$ because almost all units except wizard has an advantage over two other units so all are in a cost range of 1\$. Whereas a wizard has an advantage over 3 units so its price is raised to 2\$.

Note that if improved combat is been enabled the unit which has an advantage over another unit strikes first.

Table 2 indicates who has an advantage in any encounter

	Archer	Soldier	Knight	Siege	Wizard
Archer	Tie	Archer	Knight	Siege	Archer
Soldier	Archer	Tie	Soldier	Siege	Wizard
Knight	Knight	Soldier	Tie	Knight	Wizard
Siege	Siege	Siege	Knight	Tie	Wizard
Wizard	Archer	Wizard	Wizard	Wizard	Tie

Table 2

Game play

Once you start running the game. Initially you would be taken to a welcome screen like in Fig 18

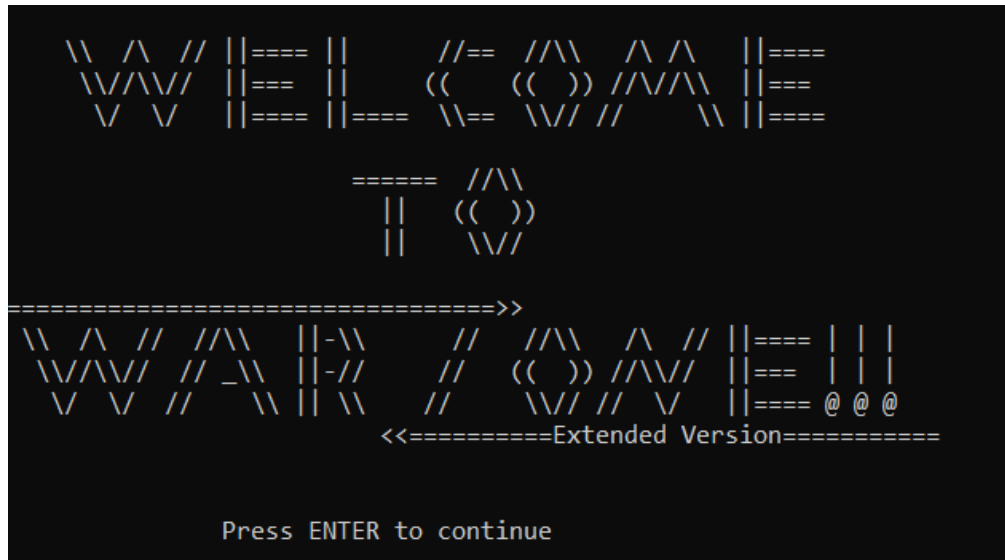


Fig 18

Now Press Enter to continue. Once you have pressed Enter it will take you to the Game Menu which will look like Fig 19

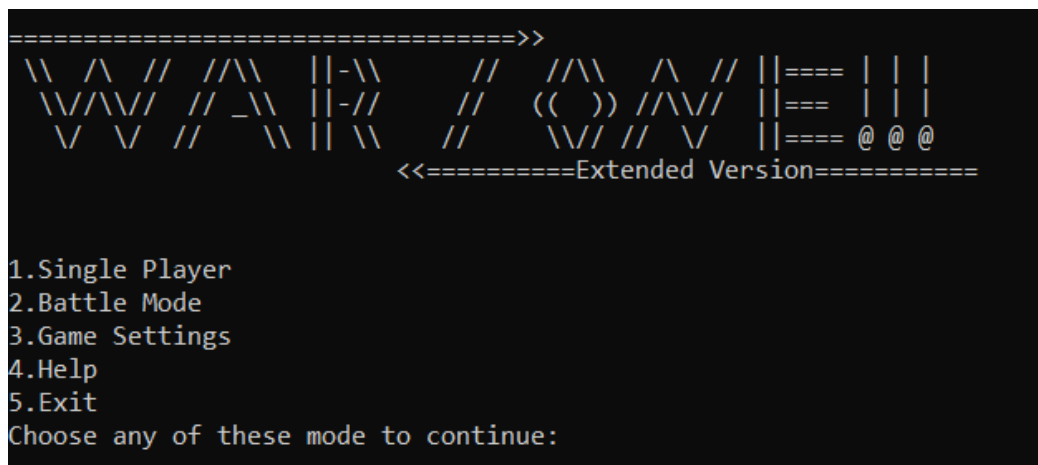


Fig 19

Here the various game modes are available like

- Single Player
- Battle Mode

Single Player

In this mode the commander will choose his army and fight against the computer. From main menu as in Fig 19. If we press 1 we will enter single player mode. Which will look like Fig 20

```
=====>>
\\  ^  //  //\\  ||-\\  //  //\\  ^  //  ||==== | | |
\\^\\^\\  //  _\\  ||-//  //  (( )) //\\^\\  ||==== | | |
  ^  ^  //  _\\  ||  \\  //  \\^\\  //  ^  ||==== @ @ @
                                     <<=====Extended Version=====

Enter Player  Details
Player Name :
```

Fig 20

Here the player will enter his details like player name and press ENTER. Which will take you to the player army selection page which will look like Fig 21

```
=====>>
\\  ^  //  //\\  ||-\\  //  //\\  ^  //  ||==== | | |
\\^\\^\\  //  _\\  ||-//  //  (( )) //\\^\\  ||==== | | |
  ^  ^  //  _\\  ||  \\  //  \\^\\  //  ^  ||==== @ @ @
                                     <<=====Extended Version=====

Player Details
-----
Player Name : Jaimon TT
Money Left : $10
Player Army :

Available Army Units Are
  0  \      0 ^      0      (0
 /|\--)->  /|\|      /X\--+==> /0\ .  _\\_
 | /        | |      x      [|]-/  |____|
 / \        / \      / \      / \      (0) (0)
Archer    Soldier   Knight   Wizard   Seige
Cost:1$    Cost:1$    Cost:1$    Cost:2$    Cost:1$
Health:1   Health:2   Health:3   Health:3   Health:3
-----
UnitID:1   UnitID:2   UnitID:3   UnitID:4   UnitID:5

Press q if you are done with all the purchasing
Press h for help regarding units

Enter the desired army unit ID that you wish to purchase:
```

Fig 21

Here all the details of the player are been shown like players name, money left and army. Also, all the available army units which are available for purchasing is also been shown like archer, soldier, knight, siege and wizard. Along with their cost, health (if health mode is enabled) and unit ID. If we require more details regarding

these units like archer has advantage over which unit. All these details are available in help. To access help regarding units, press h. This will take us to the help screen regarding the units. Which will look like Fig 22

```

=====
\  ^  //  //  \  ||-\  //  //  \  ^  //  ||==== | | |
\\^\\^//  _\\  ||-//  //  (( )) //\\^//  ||==== | | |
  \  \  //  _\\  ||  \  //  \\//  //  \  ||==== @ @ @
                                <=====Extended Version=====

0  \
/|\--)->
|  /
/\
Archer
Cost:1$
Health:1
-----
UnitID:1

Archer has an advantage over Soldier and Wizard units
Special Powers : If an Archer is at the front of its army but not in battle,
they deal their damage to the opposing unit if they are still alive at the end of combat.

0  ^
/|\
|  |
/\
Soldier
Cost:1$
Health:2
-----
UnitID:2

Soldier has an advantage over Knight units

0
/X\--+==>
X
/\
Knight
Cost:1$
Health:3
-----
UnitID:3

Knight has an advantage over Archer and Seige units
Special Powers : If the Knight is fighting an Archer and the unit behind the Archer is another Archer,
then the Knight deals its damage to both Archers.

/0\ .
[|]-/
/\
Wizard
Cost:2$
Health:3
-----
UnitID:4

Wizard has an advantage over Soldier, Knight and Seige units

(0
 _\\_
|____|
(0) (0)
Seige
Cost:1$
Health:3
-----
UnitID:5

Seige has an advantage over Archer and Soldier units

Press Enter to continue

```

Fig 22

From here if you press Enter you will be taken back to player selection menu in Fig 21

To purchase a unit, we can press their respective unit ID and press enter. Once the unit has been purchased their respective cost is also been deducted from the player money. You can only purchase as many units as much as you have money. Also, you can see that the unit that you have purchased has been added to you army. For example, if you buy an archer and a soldier your screen will look like Fig 23

```

=====>>
\\ /\ // /\ \ ||-\ \ // /\ \ /\ // ||==== | | |
\\ /\ // // \ \ ||-// // (( )) /\ // ||==== | | |
 \ \ // \ \ || \ \ // \ \ // \ \ ||==== @ @ @
<<=====Extended Version=====

Player Details
-----
Player Name : Jaimon TT
Money Left : $8
Player Army :
  0 \      0 ^
 /|\--)-> /|\|
 | /      | |
 /\       /\
Archer    Soldier

Available Army Units Are
  0 \      0 ^      0      (0
 /|\--)-> /|\|      /X\--+==> /O\ .  _\ \
 | /      | |      X      [|]-/  |____|
 /\       /\       /\       /\       (0) (0)
Archer    Soldier  Knight   Wizard  Seige
Cost:1$    Cost:1$   Cost:1$   Cost:2$   Cost:1$
Health:1   Health:2  Health:3  Health:3  Health:3
-----
UnitID:1   UnitID:2  UnitID:3  UnitID:4  UnitID:5

Press q if you are done with all the purchasing
Press h for help regarding units
Press r to remove last unit

Enter the desired army unit ID that you wish to purchase:

```

Fig 23

Here since you have purchased two units and since both the units have a cost of 1\$. The total player money left over is been updated to 8\$.

Now we can see that a new option r is available. If we press r the recently purchased unit is been removed from your army unit. Also, you player money is also been updated. For example, if you press r now the soldier that you had purchased is been removed and player money is been updated back to 9\$ like in Fig 24

```

=====>>
\\  ^  //  //\\  ||-\\  //  //\\  ^  //  ||==== | | |
 \\/^\\//  //  -\\  ||-//  //  (( )) //^\\//  ||==== | | |
  V  V  //  -\\  ||  \\  //  \\//  //  V  ||==== @ @ @
                                     <<=====Extended Version=====

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0  \
 /|\--)->
  |  /
 /  \
Archer

Available Army Units Are
  0  \      0 ^      0      _      (0
 /|\--)->  /|\      /X\--+==> /0\ .  _\\_
  |  /      | |      x      [|]-/  |____|
 /  \      /  \      /  \      /  \  (0) (0)
Archer    Soldier  Knight  Wizard  Seige
Cost:1$    Cost:1$   Cost:1$   Cost:2$   Cost:1$
Health:1   Health:2  Health:3  Health:3  Health:3
-----
UnitID:1   UnitID:2  UnitID:3  UnitID:4  UnitID:5

Press q if you are done with all the purchasing
Press h for help regarding units
Press r to remove last unit

Enter the desired army unit ID that you wish to purchase:

```

Fig 24

Once you have completed purchasing your units you can move forward to next option by pressing q.

Here you would be asked to enter the opponents name. Which will look like Fig 25

```

=====>>
\\ /\ // /\ \ ||-\ \ // /\ \ /\ // ||==== | | |
\\ /\ \ // _\ \ ||-// // (( )) /\ \ // ||=== | | |
  \ \ // _\ \ || \ \ // \ \ // \ \ // ||==== @ @ @
                                     <<=====Extended Version=====

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
 /|\--)->
  | /
 / \
Archer

Available Army Units Are
  0 \      0 ^      0      _      (0
 /|\--)->  /|\ \    /X\--+==> /0\ .  _\ \
  | /      | |      X      [|]-/  |____|
 / \      / \      / \      / \      (0) (0)
Archer    Soldier  Knight   Wizard   Seige
Cost:1$   Cost:1$   Cost:1$   Cost:2$   Cost:1$
Health:1  Health:2  Health:3  Health:3  Health:3
-----
UnitID:1  UnitID:2  UnitID:3  UnitID:4  UnitID:5

Press q if you are done with all the purchasing
Press h for help regarding units
Press r to remove last unit

Enter the desired army unit ID that you wish to purchase:q
Please Enter the name of your opponent :

```

Fig 25

Once you enter the opponents name and press enter randomly an army for your opponent is been created and you would be taken to a fighting screen menu. Which will look like Fig 26


```

=====>>
\\  /\  //  //\\  ||-\\      //  //\\  /\  //  ||==== | | |
\\/\//  //  _\\  ||-//      //  (( )) //\\//  ||==  | | |
  \  \  //  _\\  ||  \      //  \//  //  \  \  ||==== @ @ @
                                     <<=====Extended Version=====

Current Army Status of Players

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0  \
 /|\--)->
  |  /
 / \
Archer

Player Details
-----
Player Name : Danger
Money Left : $6
Player Army :
  0              0 ^
/X\--+==>  /O\  .  /|\|
X          [|]-/   | |
/\         /\     /\
Knight    Wizard  Soldier

-----

Match Menu
-----
1.Start Fight
2.Instant Result
3.Fight Summary
4.Go back to Previous menu
5.Exit
Please select Any of the above choices:

```

Fig 26

In this Page various methods is which you can watch the fight is been shown like

- Start Fight
- Instant Result
- Fight Summary

Start Fight

If we press 1 and then Enter we will go into this mode. In this mode each time a unit of player 1's unit faces computer's unit. A detailed description about the fight sequence is been displayed. Also, a prompt is been asked to the user to continue the fight. Like in Fig 27

```

-----Fighting Begins Here -----

Current Army Status of Players

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
 /|\--)->
  | /
 / \
Archer

Player Details
-----
Player Name : Danger
Money Left : $6
Player Army :
  0
 /X\--+==>  /0\ .      0 ^
X           [|]-/      /|\|
 / \        / \       | |
Knight      Wizard    Soldier

  0 \      \ \ // _____      0
 /|\--)->  \ \ // // _____  <==+-/X\
  | /      \ \ // \ \-----\ \      X
 / \        \ \ // _____//      / \
Archer      Knight

Jaimon TT's Archer has health - 1 left
Danger's Knight has health - 3 left
Since Knight has an advantage over Archer
Danger's Knight kills Jaimon TT's Archer

Press Enter to continue

```

Fig 27

Once the user presses Enter the next unit of the dead unit's army faces the opposition unit and each time the army is been updated with the available units.

Once the entire army of the any of the user is over the war gets over and the other user is been declared as the winner like in Fig 28

```

-----Fighting Begins Here -----

Current Army Status of Players

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
 /|\--)->
  | /
 / \
Archer

Player Details
-----
Player Name : Danger
Money Left : $6
Player Army :
  0           0 ^
 /X\--+==> /O\ . /|\|
  x      [|]-/  | |
 / \     / \   / \
Knight  Wizard Soldier

  0 \      \ \ // _____  0
 /|\--)-> \ \ // //_____ <==+-/X\
  | /      \ \ // \-----\  x
 / \       \ \ // _____ / \
Archer      \ \ // _____ Knight

Jaimon TT's Archer has health - 1 left
Danger's Knight has health - 3 left
Since Knight has an advantage over Archer
Danger's Knight kills Jaimon TT's Archer

Press Enter to continue

Player Danger Wins!!!

Press Enter to continue

```

Fig 28

From Here if we press Enter we would again be taken back to the Fighting menu in Fig 26.

Instant Result

From menu in Fig 26 If we press 2 we will enter this mode. In this mode as the name itself suggest all the match details is been skipped and we will get an instant result about who is the winner of the war. Like in Fig 29

```

=====>>
\\ /\ // /\ \ ||-\ \ // /\ \ /\ // ||==== | | |
\\ \ \ \ // \ \ ||-// // (( )) /\ \ \ ||==== | | |
 \ \ // \ \ || \ \ // \ \ \ // \ \ ||==== @ @ @
<<=====Extended Version=====

Current Army Status of Players

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
 /|\--)->
  | /
 / \
Archer

Player Details
-----
Player Name : Danger
Money Left : $6
Player Army :
  0 ^
 /X\--+==> /0\ . /|\|
 X      [ ]-/ | |
 / \    / \  / \
Knight  Wizard  Soldier

-----

Match Menu
-----
1.Start Fight
2.Instant Result
3.Fight Summary
4.Go back to Previous menu
5.Exit
Please select Any of the above choices: 2

Player Danger Wins!!!

Press Enter to continue

```

Fig 29

From Here if we press Enter we would again be taken back to the Fighting menu in Fig 9.

Fight Summary

From the menu in Fig 26. If you press 3 we will enter this mode. In this mode the entire fight details are been shown without any prompt been asked from the user. Like in Fig 30

```

-----Fighting Begins Here -----

Current Army Status of Players

Player Details
-----
Player Name : Jaimon TT
Money Left : $9
Player Army :
  0 \
 /|\--)->
  | /
 / \
Archer

Player Details
-----
Player Name : Danger
Money Left : $6
Player Army :
  0      0 ^
 /X\--+==> /0\ . /|\|
 X      [|]-/  | |
 / \      / \  / \
Knight   Wizard   Soldier

  0 \      \ \  //  _____  0
 /|\--)->  \ \  //  //_____  <==+-/X\
 | /      \ \  //  \ \-----\ \  X
 / \      V   _____//  / \
Archer      Knight

Jaimon TT's Archer has health - 1 left
Danger's Knight has health - 3 left
Since Knight has an advantage over Archer
Danger's Knight kills Jaimon TT's Archer

Player Danger Wins!!!

Press Enter to continue

```

Fig 30

From Here if we press Enter we would again be taken back to the Fighting menu in Fig 26.

From menu in Fig 26 if we press 4 we would be taken back to previous main menu in Fig 19

From menu in Fig 26 if we press 5 we can exit from the game.

Battle Mode

From main menu as in Fig 19. If we press 2 we will enter battle mode. Which will look like Fig 31

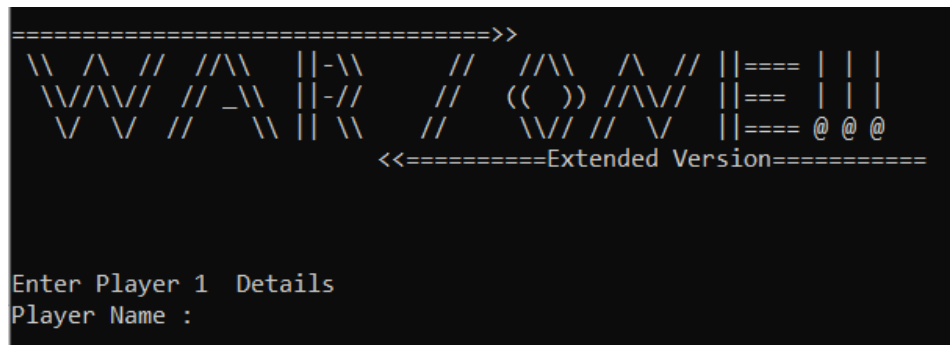


Fig 31

Here the player 1 will enter his details like player name and press Enter. Which will take you to the player army selection page same as in Fig 21 in Single player

Once player 1 army is been selected we would be taken to a new page where we can enter the details of the player 2. Which will look like Fig 32

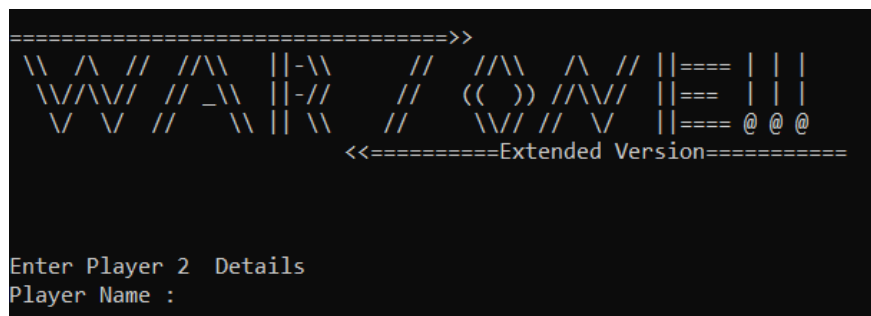


Fig 32

Here the player 2 will enter his details like player name and press Enter. Which will take you to the fight menu in as in Fig 26 for single player.

From here onwards everything is same as the single player only difference is that instead of the random army selected by the computer you will be fighting player 2's army.

Game Settings

From Fig 19. If we press 3 we will go into game settings page where we will see the status of the various game settings like improved combat, medics etc which will look like Fig 33

```

=====>>
\\  /\\  //  //\\  ||-\\  //  //\\  /\\  //  ||==== | | |
\\\\//\\//  //  -\\  ||-//  //  (( )) //\\//  ||== | | |
  \\  \\  //  -\\  ||\\  //  //  \\//  //  \\  ||==== @ @ @
                                <<=====Extended Version=====

Game Settings
-----

1.Health Mode : Enabled
2.Improved Combat Mode : Enabled
3.Medics Mode : Disabled
4.User Prompt Medics Mode : Disabled
5.Extended Army Mode : Enabled

6.Help
7.Go back to previous menu
8.Exit
Choose any of the above options to continue:

```

Fig 33

Help

From here if you wish to know more details regarding the various game modes you can press 6 and enter. This will take you to the help screen of various game features which will look like Fig 34

Editing a Game Setting

From Fig 33 if you wish to edit any of the settings you can press the respective id and press enter then it will show you various options regarding editing that feature like whether you wish to enable the feature or disable the feature or leave as it is without changing anything.

For example, if you press 4 you would be taken to a page where you can edit the status of user prompt medics. Which would look like Fig 35

```

=====>>
\\ /\ /\ /\ /\ ||-\ \ // /\ \ /\ /\ ||==== | | |
\\ /\ /\ /\ /\ ||-\ \ // (( )) /\ /\ /\ ||==== | | |
  \ \ // - \ \ || \ \ // \ \ // \ \ ||==== @ @ @
                                     <<=====Extended Version=====

Game Settings
-----

1.Health Mode : Enabled
2.Improved Combat Mode : Enabled
3.Medics Mode : Disabled
4.User Prompt Medics Mode : Disabled
5.Extended Army Mode : Enabled

6.Help
7.Go back to previous menu
8.Exit
Choose any of the above options to continue:4

Press e to enable User Prompt Medics Mode.
Press d to disable User Prompt Medics Mode.
Press l to leave User Prompt Medics Mode as it is.

Choose any of the above options :

```

Fig 35

From here if press e that feature is been enabled

From here if we press d that feature is been disabled

From here if we press l it will leave the status of that feature as it was earlier

After entering the option and press enter you would be taken back to game settings option menu in Fig 33. Where you can see that the recent change that you had made in the settings will also be reflected.

From Fig 33 If you press 7 you would be taken to the game menu in Fig 19.

From Fig 33 If you press 8 you will exit the game

Game Modes Help

From Fig 19 menu If we press 4 we will go into help screen where we will get all the details regarding the various game modes which will look like Fig 36

```

=====>>
\\  ^  //  //\\  ||-\\  //  //\\  ^  //  ||=== | | |
\\^\\^//  // -\\  ||-//  //  (( )) //\\//  ||== | | |
  \\  //  -\\  || \\  //  \\//  //  \\  ||=== @ @ @
                                <<=====Extended Version=====

Game Modes
-----
Various Game modes are
1)Single Player
2)Battle Mode

Single Player
-----
In this mode user will be fighting against the Computer

Battle Mode
-----
In this mode two users will be fighting each other.

Press Enter to continue

```

Fig 36

Exit

From Fig 19 menu if you press 5. You can exit the game

Special Features Explained With Examples

Improved Combat Mode

If improved combat is been enabled and if one unit has an advantage over another unit. Then the unit with advantage strikes first. Which might result in killing the opponent unit without receiving any retaliation damage by the opponent.

For example, soldier has advantage over knight, so the scenario will look like in Fig 37

```

-----Fighting Begins Here -----

Current Army Status of Players

Player Details
-----
Player Name : Jaimon
Money Left : $9
Player Army :
  0 ^
  /\|
  | |
  /\
Soldier

Player Details
-----
Player Name : enemy
Money Left : $8
Player Army :
  0      0
/X\--+==> /X\--+==>
 X      X
 /\      /\
Knight   Knight

  0 ^      \ \ // _____  0
  /\|      \ \ // // _____ <==+-/X\
  | |      \ \// \\\-----\\  X
  /\      V  _____//    /\
Soldier      Knight

Jaimon's Soldier has health - 2 left
enemy's Knight has health - 3 left
Since Soldier has an advantage over Knight
Jaimon's Soldier kills enemy's Knight

```

Fig 37

We can see that initially soldier had a health of 2 and since soldier has an advantage over knight soldier strikes first and gives a damage of 3 to the knight. Thus, the knight dies, and the soldier goes forward with the same health 2 to fight against next unit of player enemy. So, it would look like Fig 38

```

Current Army Status of Players

Player Details
-----
Player Name : Jaimon
Money Left : $9
Player Army :
  0 ^
  /\|
  | |
  / \
Soldier

Player Details
-----
Player Name : enemy
Money Left : $8
Player Army :
  0
  /X\--+==>
  X
  / \
Knight

      0 ^      \ \ // // _____
      /\|      \ \ // // _____
      | |      \ \ // // _____
      / \      V  _____//
Soldier          Knight

Jaimon's Soldier has health - 2 left
enemy's Knight has health - 3 left
Since Soldier has an advantage over Knight
Jaimon's Soldier kills enemy's Knight

Player Jaimon Wins!!!

Press Enter to continue

```

Fig 38

If improved combat is been enabled, and a knight is fighting an archer and the unit behind the archer is also an archer then knight can trample both the units with one strike. Also note that if the third unit was also an Archer then we know that If an archer is at the front of its army but not in battle, they deal their damage to the opposing unit if they are still alive at the end of the combat. So, this scenario will look like Fig 39

```

Current Army Status of Players

Player Details
-----
Player Name : Jai
Money Left : $7
Player Army :
  0 \      0 \      0 \
 /|\--)-> /|\--)-> /|\--)->
  | /      | /      | /
 / \      / \      / \
Archer    Archer    Archer

Player Details
-----
Player Name : enemy
Money Left : $9
Player Army :
  0
 /X\--+==>
  X
 / \
Knight

  0 \      0 \      \ \ // _____
 /|\--)-> /|\--)-> \ \ // // _____ <==+-/X\
  | /      | /      \ \ // // _____
 / \      / \      \ \ // \ \-----\ \
Archer    Archer    \ \ // _____ Knight

Jai's Archer has health - 1 left
enemy's Knight has health - 3 left
Since Knight has an advantage over Archer
enemy's Knight kills Jai's Archer
Archer in the behind is also been killed due to knights special ability

  0 \      \ \ // _____      0
 /|\--)-> \ \ // // _____ <==+-/X\
  | /      \ \ // // _____
 / \      ==|_____|+0 ==|_____|+0 \ \
Archer    ---DEAD--- ---DEAD--- \ \
                                   \ \
                                   Knight

Here Jai's Archer attacks enemy's Knight from behind the dead units
Thus enemy's Knight also dies.

Player Jai Wins!!!

```

Fig 39

Health

If health is been enabled without improved combat, then whenever a unit has an advantage over another unit the unit makes a damage of 3 to the opposition unit. The opposition unit makes a damage of 1 to the current unit as retaliation. Note that if improved combat is been enabled then this retaliation damage won't occur as the unit which has advantage strikes first and kills the opposition unit. So, the scenario without improved combat will look like Fig 40

```

Current Army Status of Players

Player Details
-----
Player Name : Jai
Money Left : $6
Player Army :
  0 \      0 \      0 \      0 \
  /\-->-> /\-->-> /\-->-> /\-->->
  | /      | /      | /      | /
  / \      / \      / \      / \
  Archer   Archer   Archer   Archer

Player Details
-----
Player Name : enemy
Money Left : $9
Player Army :
  0
  /X\--+==>
  X
  / \
  Knight

  0 \      \ \      // _____      0
  /\-->-> \ \ // // _____ <==+-/X\
  | /      \ \ // // _____      X
  / \      \ \ // // _____      / \
  Archer           Knight

Jai's Archer has health - 1 left
enemy's Knight has health - 3 left
Since Knight has an advantage over Archer
enemy's Knight kills Jai's Archer
But still Jai's Archer gives a retaliation damage of 1 unit to enemy's Knight's health.

Current Army Status of Players

Player Details
-----
Player Name : Jai
Money Left : $6
Player Army :
  0 \      0 \      0 \
  /\-->-> /\-->-> /\-->->
  | /      | /      | /
  / \      / \      / \

Player Details
-----
Player Name : enemy
Money Left : $9
Player Army :
  0
  /X\--+==>
  X
  / \
  Knight

  0 \      \ \      // _____      0
  /\-->-> \ \ // // _____ <==+-/X\
  | /      \ \ // // _____      X
  / \      \ \ // // _____      / \
  Archer           Knight

Jai's Archer has health - 1 left
enemy's Knight has health - 2 left
Since Knight has an advantage over Archer
enemy's Knight kills Jai's Archer
But still Jai's Archer gives a retaliation damage of 1 unit to enemy's Knight's health.

```

Fig 40

Here in Fig 40 we can see that in second round the health of knight is been reduced to 2 from 3 due to the retaliation damage of the archer. We also know that if a unit doesn't have a clear advantage or disadvantage over another unit then both units faces a damage of 2. For example, if a knight faces another knight the fight scenario will look like Fig 41

```

Current Army Status of Players

Player Details
-----
Player Name : Jaimon
Money Left : $9
Player Army :
  0
  /X\--+==>
  X
  / \
  Knight

Player Details
-----
Player Name : enemy
Money Left : $9
Player Army :
  0
  /X\--+==>
  X
  / \
  Knight

  0      \ \  //  _____      0
  /X\--+==> \ \  //  //_____ <==+ /X\
  X          \ \  //  //-----\ \   X
  / \          \ \  //  //_____//   / \
  Knight          Knight

Jaimon's Knight has health - 3 left
enemy's Knight has health - 3 left
Here since both of the units are Knight. None of the units has a clear advantage.
Both of them goes for another round as both of them has more health left out

Current Army Status of Players

Player Details
-----
Player Name : Jaimon
Money Left : $9
Player Army :
  0
  /X\--+==>
  X
  / \
  Knight

Player Details
-----
Player Name : enemy
Money Left : $9
Player Army :
  0
  /X\--+==>
  X
  / \
  Knight

  0      \ \  //  _____      0
  /X\--+==> \ \  //  //_____ <==+ /X\
  X          \ \  //  //-----\ \   X
  / \          \ \  //  //_____//   / \
  Knight          Knight

Jaimon's Knight has health - 1 left
enemy's Knight has health - 1 left
Here since both of the units are Knight. None of the units has a clear advantage.
So both of them dies

Both Players Units Dies Neither of them Wins!!!

```

Fig 41

Here we can see the both knights' health is been reduced from health 3 to 1 after one round of fight as both units faces a damage of 2

Medics

Money remaining after the purchasing of armies will be used to hire and outfit medics. When a unit dies, it will be returned to the pool at the back of the army. Each time this happens, supplies for the medics decreases. Once the medics have no supplies left, they will be unable to save any more units.

Medics are hired and supplied at \$1 per unit. All money at the end of army creation is spent on Medics.

For example, if we take a scenario of soldier fighting an archer the archer kills the soldier. But the soldier is been revived and added to the back of the army at a cost of 1\$. So, this scenario will look like Fig 41

```
Current Army Status of Players

Player Details
-----
Player Name : Jai
Money Left : $9
Player Army :
  0 \
 /|\-->->
  | /
 / \
Archer

Player Details
-----
Player Name : enemy
Money Left : $8
Player Army :
  0 ^      0
 /|\|    /X\--+==>
  | |      X
 / \      / \
Soldier   Knight

  0 \      \ \      //      _____      ^ 0
 /|\-->->  \ \  //  //      _____      |/\|
  | /      \ \  //  //      _____      | |
 / \      \ \  //  //      _____      / \
Archer      \ \  //  //      _____      Soldier

Jai's Archer has health - 1 left
enemy's Soldier has health - 2 left
Since Archer has an advantage over Soldier
Jai's Archer kills enemy's Soldier
enemy's last dead unit has been successfully revived and added to back of the army.
```

Fig 41


```

Current Army Status of Players

Player Details
-----
Player Name : Jai
Money Left : $9
Player Army :
  0 \
 /|\--)->
  | /
 / \
Archer

Player Details
-----
Player Name : enemy
Money Left : $7
Player Army :
  0           0 ^
 /X\--+==>  /|\|
  X           | |
 / \          / \
Knight       Soldier

```

Fig 42

Here in Fig 42 you can see that the player money of enemy is been reduced from 8 to 7 since enemy's soldier is been revived. You can also see that the soldier is been added to the end of the army.

Users prompt Based Medics

Same as Medics only difference is that in medics all the left-over money is applied to medics by default. Here the user is given the choice to decide whether they wish to revive the current dead unit or not.

So, In the above scenario the prompt will look like Fig 43

```

Current Army Status of Players

Player Details
-----
Player Name : Jai
Money Left : $8
Player Army :
  0 \      0 \
 /|\-->-> /|\-->->
  | /      | /
 / \      / \
Archer    Archer

Player Details
-----
Player Name : enemy
Money Left : $8
Player Army :
  0 ^      0
 /|\      /X\--+==>
  | |      x
 / \      / \
Soldier   Knight

  0 \      \ \      //      ^ 0
 /|\-->-> \ \ // //      |/\
  | /      \ \ // //      | |
 / \      \ \ // \-----\ \ / \
Archer      \ \      //      Soldier

Jai's Archer has health - 1 left
enemy's Soldier has health - 2 left
Since Archer has an advantage over Soldier
Jai's Archer kills enemy's Soldier
Do you wish to revive enemy's last dead unit (y/n):

```

Fig 43

Note that here if we press y and Enter then the unit is been revived if you pressed n then the unit won't be revived.

Also note that user prompt medics will only be available in start fight mode in rest of the modes it will act same as medics.

Extended Army

If this mode is been enabled, then the commander gets two new units to choose from:

- Siege Equipment: Who win against everyone except Knights and Wizards. Cost of this unit is 1\$ and health is 3
- Wizard: Who can beat anything, but they can't dodge Archers arrows. Cost of this unit is 2\$ and health is 3

Here I had given cost of siege as 1\$ and cost of Wizard as 2\$ because almost all units except wizard has an advantage over two other units so all are in a cost range of 1\$. Whereas a wizard has an advantage over 3 units, so its price is raised to 2\$.

Note that if improved combat is been enabled the unit which has an advantage over another unit strikes first.

Table 2 indicates who has an advantage in any encounter

	Archer	Soldier	Knight	Siege	Wizard
Archer	Tie	Archer	Knight	Siege	Archer
Soldier	Archer	Tie	Soldier	Siege	Wizard
Knight	Knight	Soldier	Tie	Knight	Wizard
Siege	Siege	Siege	Knight	Tie	Wizard
Wizard	Archer	Wizard	Wizard	Wizard	Tie

Table 2

So, if this mode is been enabled the player selection screen will look like Fig 21

Note that for evaluation purpose you can consider improved combat mode and health mode