**Pseudo code** (for the base of the game):

Would the user like to create (1) or use a preexisting army (2)?

If 1:

Create Army

Save Army

If 2:

Load Army

Allow user to select opponent from files

Load Opponent

While units still around:

Display battlefield

PlayerTurn()

EnemyTurn()

Update Units positions and Health

Wait(1s)

Turn():

For each unit:

if enemy unit in attack range:

Attack

Else:

Move

Attack()

Check all enemy's in range

Deal damage to highest priority

Move()

Find nearest enemy

Move one Cell closer

**Data structure:**

|  |  |  |
| --- | --- | --- |
| Name | example | Explanation |
| Cell | 1C10 | What's present in a cell (on an active or saved board) will be denoted like follows:  1C10 with the first digit signaling team the character unit type and the final number the health of that unit |

**Class table:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Inheritance | Variable and functions | Explanation |
| Unit | - | Base Unit target priority  Base Unit attack value vs | Base template for all units to allow for special units to be made later with different abilities and breaking down of each unit into its own sub class |
| -Specific unit | Unit | Specific Unit target priority  Specific Unit attack value  Unit special ability  Unit firing range  Unit movement range |  |

**Function table:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Function | Class belonging too | Brief description | Potential parameters | Return values |
| Load Army | null | Loads an army from a notepad file | File name | Array |
| Save Army | null | Saves army into a notepad file | File name | Void |
| Display Board | null | Displays the board | Current Board | Array |
| Create Army | null | Allows user to create their own army Based on amount of points to use and what units are available to the user | Points, Units | Array |
| Create Board | null | Get the two Armies and combine them into one array for displaying | Army1,Army2 | Array |
| Is Cell empty | Unit | Check if | Cell Position | Bool |
| Unit action decision | Unit | Deicide if going to attack or move | Unit Position |  |
| Movement of unit | Unit | Decide closest enemy and move to towards them | Unit type |  |
| Attack of unit | Unit | Pick highest valued target in attack range and deal damage | Unit type |  |