

30 Hero of the Core

18 points

Introduction

You work in the upcoming amazing game called Hero of the Core, which intends to reinvent the Multiplayer online battle arena (MOBA) genre. The game will put you in a 2D arena map full of towers and enemy heroes. As one of the last members of your clan you should defend your core at all cost besides your comrades, destroying the enemy heroes and their towers.

The main designer has requested to develop a small prototype to show the base game mechanics to some investors. In this early prototype the objective will be to test the movement and destroy mechanics against the towers and the enemy heroes, but there will be only one player hero and your core will be safe as the enemy heroes won't move.

Each time you destroy a tower you will win a weapon to destroy an enemy hero, if you try to defeat an enemy hero without a weapon you will be defeated! So the number of enemy heroes and towers need to be the same.

The game will end with victory when all the towers and enemies are defeated, but it will end with a defeat if your hero perishes against an enemy hero, in any case, The result will always be shown after show the status.

If there is an error creating the map, the game will show the status, the error reason and will exit immediately:

- If there are no hero or core the next message should be shown:
 - **Error: It has to be a hero and a core!**
- If more than 1 hero the next message should be shown:
 - **Error: It can't be several main heroes!**
- If more than 1 core the next message should be shown:
 - **Error: It can't be several cores!**



Example 1 - Input

The input to your game will be:

- The size of the arena given as maximum rows and columns.
- Several positions in the map, each of them with only one of the following elements:
 - Empty - represented as '_', by default all arena is empty.
 - Hero player - represented as 'h', in this prototype it has to be only one.
 - Core - represented as 'c', it has to be only one!
 - Enemy Tower - represented as 't'
 - Enemy hero – represented as 'e'
- A dot, this will help to delimitate arena setup from movements.
- A sequence of movements given as a pair (± 1 , ± 1), indicating the rows and columns to advance each round.
 - Your hero can only walk one position at a time in any direction and without exit the map.
 - Given a (2,2) movement the output should show the next message and keep reading the next input:
 - **Can't move that distance! (2,2)**
 - If your hero walks into an enemy tower position, the tower will be destroyed and the hero collects a weapon.
 - If your hero walks into an enemy position,
 - If the hero has a weapon he will beat the enemy and replace its position.
 - If the hero has no weapon the game ends and should show the string:
 - **You died!**
 - If there are no more movements and the game has not ended in any way (win, hero dies, etc) the next message should be shown:
 - **No more movements! Game ended without result!**

```
3 3      ← this is a 3x3 arena
0 1 h    ← row 0 and column 1 is the hero position
0 0 c    ← row 0 and column 0 is the core position
1 1 e    ← at row 1 and column 1 there is an enemy hero
1 2 t    ← at row 1 and column 2 there is a tower
.        ← From now on all inputs are movements!
1 1      ← Go down one row and right one column
0 -1     ← Go left one column
```



Example 1 - Output

The output will be a matrix, showing each element and the evolution of the movements.

Game Status:

```
c h _
```

```
_ e t
```

```
- - -
```

[Enemy heroes left=1][Current weapons=0]

```
c _ _
```

```
_ e h
```

```
- - -
```

[Enemy heroes left=1][Current weapons=1]

```
c _ _
```

```
_ h _
```

```
- - -
```

[Enemy heroes left=0][Current weapons=0]

You have cleaned the battle arena! Congratulations!

Example 2 - Input

```
3 3
```

```
0 1 h
```

```
0 0 c
```

```
1 1 e
```

```
1 2 t
```

```
.
```

```
1
```

Example 2 - Output

Game Status:

```
c h _
```

```
_ e t
```

```
- - -
```

[Enemy heroes left=1][Current weapons=0]

```
c _ _
```

```
_ e h
```

```
- - -
```

[Enemy heroes left=1][Current weapons=1]

No more movements! Game ended without result!

