

COSC2531 Programming Fundamentals

Semester 2 2017

Assignment

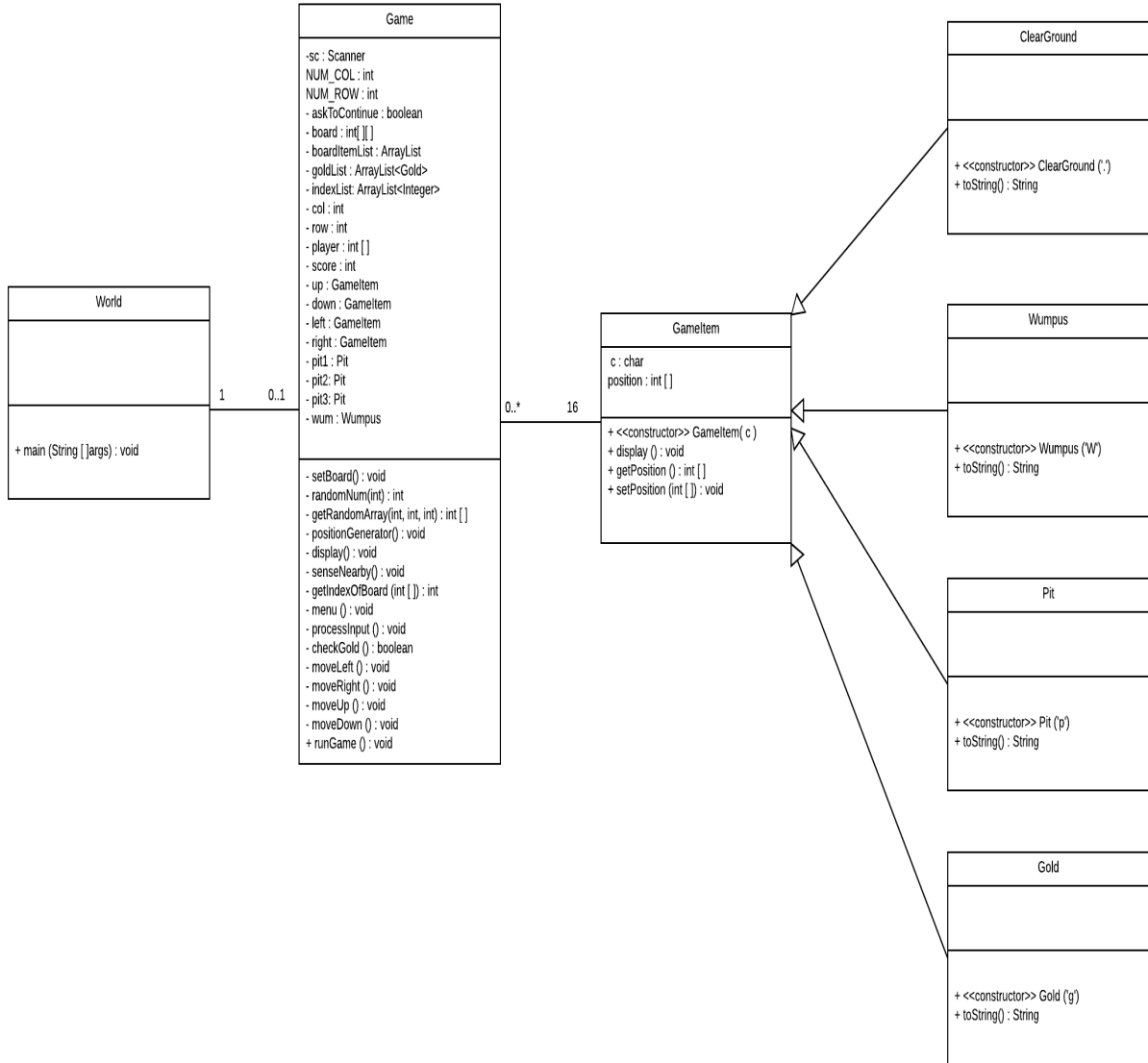
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Team Members and Contribution:

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Class Diagram



Launching the game

When the game is launched via calling the method `runGame()` by an instance of the class `Game` called `myGame`, it prompted the player the four items which were immediately surrounding it, as the screenshot shown below.

The player is surrounded by a Clear Ground above it, a Breeze beneath it, a Vile Smell to its left, and a Clear Ground to its right.

p	.	p	.
.	.	.	.
.	.	g	p
*	.	g	W

====Wumpus====

1. Move player left
2. Move player right
3. Move player up
4. Move player down
5. Quit

Then, for example, the player chose to move to the grid right beside it, after it moved to the grid right to it, its previous location before moving has been replaced by a ClearGround which is represented by a '.'.

The player is surrounded by a Clear Ground above it, a Breeze beneath it, a Vile Smell to its left, and a Clear Ground to its right.

p	.	p	.
.	.	.	.
.	.	g	p
*	.	g	W

====Wumpus====

1. Move player left
2. Move player right
3. Move player up
4. Move player down
5. Quit

2

The player is surrounded by a Clear Ground above it, a Clear Ground beneath it, a Clear Ground to its left, and a Faint Glitter to its right.

p	.	p	.
.	.	.	.
.	.	g	p
.	*	g	W

====Wumpus====

1. Move player left
2. Move player right
3. Move player up
4. Move player down
5. Quit

Then, the player determined to move right again, and successfully collected a Gold. The system prompted it with text information about this successful collection and counted 1 score for it. Again, the senseNearby() method prompted the GameItems surrounds the player immediatly, before the runGame() method displaying the board and providing the menu.

```
2
Congrats! You collected a gold!
You have earned 1 score.
The player is surrounding by a Faint Glitter above it, a Breeze beneath it, a Clear Ground to its left, and a Vile Smell to its right.

| p | . | p | . |
|---|
| . | . | . | . |
|---|
| . | . | g | p |
|---|
| . | . | * | W |
|---|

=====Wumpus=====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5.Quit
```

For the third time in this round, the player decided to move upward, after this move, it has been prompted that the score has increased by 1 for its another Gold finding, which is 2 right now. The system then checked the goldList and found that all the randomly generated Gold had been collected by the player, so it prompted the player about this information and asked the player whether it would like to play another round.

The player is surrounding by a Faint Glitter above it, a Breeze beneath it, a Clear Ground to its left, and a Vile Smell to its right.

p	.	p	.
.	.	.	.
.	.	g	p
.	.	*	W

- ====Wumpus====
1. Move player left
 2. Move player right
 3. Move player up
 4. Move player down
 - 5.Quit

3
Congrats! You collected a gold!
You have earned 2 scores.
The player is surrounding by a Clear Ground above it, a Clear Ground beneath it, a Clear Ground to its left, and a Breeze to its right.

p	.	p	.
.	.	.	.
.	.	*	p
.	.	.	W

You've collected all the golds! You win!
Do you want to play again (Y/N):

The player then decided to play again, so it entered 'Y' to the input, the system received this command and started another round of Game.

3
Congrats! You collected a gold!
You have earned 2 scores.
The player is surrounding by a Clear Ground above it, a Clear Ground beneath it, a Clear Ground to its left, and a Breeze to its right.

p	.	p	.
.	.	.	.
.	.	*	p
.	.	.	W

You've collected all the golds! You win!
Do you want to play again (Y/N):y
The player is surrounding by a Faint Glitter above it, a Clear Ground beneath it, a Clear Ground to its left, and a Clear Ground to its right.

.	p	W	.
g	p	p	.
*	.	.	.
.	.	.	.

====Wumpus====

1. Move player left
2. Move player right
3. Move player up
4. Move player down
- 5.Quit

Handling the Input Mismatch Exception

At the very beginning of the new round, however, the player entered some unexpected input somehow. Luckily, the system caught those unexpected inputs and asked it to input the correct choice.

```
Do you want to play again (Y/N):y
The player is surrounding by a Faint Glitter above it, a Clear Ground beneath it, a Clear Ground to its left, and a Clear Ground to its right.

| | | | | |
| . | p | W | . |
|_|_|_|_|_|
| | | | |
| g | p | p | . |
|_|_|_|_|_|
| * | . | . | . |
|_|_|_|_|_|
| . | . | . | . |
|_|_|_|_|_|

=====Wumpus=====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5. Quit
6
Incorrect number of Choice supplied to command ! Enter Again !
0
Incorrect number of Choice supplied to command ! Enter Again !
qwerty
Invalid input ! Enter again :
```

Finally, the player entered an integer, 3, collected the only one Gold generated this time, and ended up with refusing to play again.

```
<terminated> World [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_131.jdk/Contents/Home/bin/java (8 Oct. 2017, 9:19:53 pm)
The player is surrounding by a Faint Glitter above it, a Clear Ground beneath it, a Clear Ground to its left, and a Clear Ground to its right.

| | | | | |
| . | p | W | . |
|_|_|_|_|_|
| | | | |
| g | p | p | . |
|_|_|_|_|_|
| * | . | . | . |
|_|_|_|_|_|
| . | . | . | . |
|_|_|_|_|_|

=====Wumpus=====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5. Quit
6
Incorrect number of Choice supplied to command ! Enter Again !
0
Incorrect number of Choice supplied to command ! Enter Again !
qwerty
Invalid input ! Enter again :
3
Congrats! You collected a gold!
You have earned 1 score.
The player is surrounding by a Clear Ground above it, a Clear Ground beneath it, a Clear Ground to its left, and a Breeze to its right.

| | | | | |
| . | p | W | . |
|_|_|_|_|_|
| * | p | p | . |
|_|_|_|_|_|
| . | . | . | . |
|_|_|_|_|_|
| . | . | . | . |
|_|_|_|_|_|

You've collected all the golds! You win!
Do you want to play again (Y/N):n
```

When the Player got Killed by the Wumpus or Trapped by the Pit

Sometimes, the player awakened the Wumpus and unfortunately got killed by it, then the system prompted whether the player would like to play again.

The player is surrounding by a Clear Ground above it, a Vile Smell beneath it, a Clear Ground to its left, and a Breeze to its right.

.	*	p	.
.	W	.	.
p	.	g	g
p	.	.	.

====Wumpus====

1. Move player left
2. Move player right
3. Move player up
4. Move player down
5. Quit

4

Unfortunately, you have been killed by the Wumpus ! Game Over!

The player is surrounding by a Clear Ground above it, a Clear Ground beneath it, a Clear Ground to its left, and a Clear Ground to its right.

.	.	p	.
.	*	.	.
p	.	g	g
p	.	.	.

Do you want to play again (Y/N):|

There are also times that the player walked into a Pit and got trapped by it, the system did exactly the same as when the player got killed by the Wumpus.

Do you want to play again (Y/N):y

The player is surrounding by a Clear Ground above it, a Breeze beneath it, a Clear Ground to its left, and a Vile Smell to its right.

g	.	p	.
.	*	W	.
.	p	.	.
.	p	.	.

====Wumpus====

1. Move player left
2. Move player right
3. Move player up
4. Move player down
5. Quit

4

Unfortunately, you got caught by the trap ! Game Over!

The player is surrounding by a Clear Ground above it, a Breeze beneath it, a Clear Ground to its left, and a Clear Ground to its right.

g	.	p	.
.	.	W	.
.	*	.	.
.	p	.	.

Do you want to play again (Y/N):|

The cave system wraps around

Sometimes, the player wanted to get to its immediate left when it is positioned at the very left edge of the board, when it chose to do so, the system smartly wrapped it around.

```
The player is surrounding by a Vile Smell above it, a Clear Ground beneath it, a Clear Ground to its left, and a Breeze to its right.

=====Wumpus=====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5.Quit
1
The player is surrounding by a Clear Ground above it, a Faint Glitter beneath it, a Clear Ground to its left, and a Clear Ground to its right.

=====Wumpus=====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5.Quit
```

The same thing happened when the player was at the very top of the board and continued to move upward.

```
4
The player is surrounding by a Clear Ground above it, a Clear Ground beneath it, a Breeze to its left, and a Clear Ground to its right.

=====Wumpus=====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5.Quit
3
The player is surrounding by a Clear Ground above it, a Clear Ground beneath it, a Breeze to its left, and a Clear Ground to its right.

=====Wumpus=====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5.Quit
```

This is also exactly the same situation when the player was at the very bottom of the board and still moved downward.

The player is surrounding by a Clear Ground above it, a Clear Ground beneath it, a Breeze to its left, and a Clear Ground to its right.

g	p	.	.
.	.	.	p
g	W	.	g
.	p	*	.

- ====Wumpus====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5.Quit

4
The player is surrounding by a Clear Ground above it, a Clear Ground beneath it, a Breeze to its left, and a Clear Ground to its right.

g	p	*	.
.	.	.	p
g	W	.	g
.	p	.	.

- ====Wumpus====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5.Quit

This automatic wrapping around mechanism also works for the situation where the player was at the very right edge of the board and still moved rightward.

The player is surrounding by a Clear Ground above it, a Breeze beneath it, a Clear Ground to its left, and a Faint Glitter to its right.

g	p	.	*
.	.	.	p
g	W	.	g
.	p	.	.

- ====Wumpus====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5.Quit

2
Congrats! You collected a gold!
You have earned 1 score.
The player is surrounding by a Clear Ground above it, a Clear Ground beneath it, a Clear Ground to its left, and a Breeze to its right.

*	p	.	.
.	.	.	p
g	W	.	g
.	p	.	.

- ====Wumpus====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5.Quit

Exiting the Game via the Menu

Once the player changed its mind and wanted to exit the current round of Game, it can do so through inputting the integer “5” to end the program.

```
<terminated> World [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_131.jdk/Contents/Home/bin/java (9 Oct. 2017, 12:35:44 am)
The player is surrounding by a Breeze above it, a Vile Smell beneath it, a Faint Glitter to its left, and a Clear Ground to its right.

| . | . | p | p |
|---|
| g | g | * | . |
|---|
| . | . | W | . |
|---|
| g | p | . | . |
|---|
=====Wumpus=====
1. Move player left
2. Move player right
3. Move player up
4. Move player down
5.Quit
5
```

The above simple demonstration presented all the functions required in the assignment specification, thanks for taking your time!

Yours sincerely,

Team CodeCruisers

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