

✓ Src

✓ Comp110.ass2

✓ gui

Ⓢ Game

Ⓢ View

✓ game

Ⓢ Species

Ⓢ Cards

Ⓢ Deck

Ⓢ DiscardPile

Ⓢ Position

Ⓢ Arboretum

Ⓢ Player

✓ Event

Ⓢ Turn

Ⓢ RightToScore

Ⓢ getScore

Ⓢ Gameplay

✓ src

✓ comp1110, ass2

✓ gui

viewer
Game

✓ game

```
enum Species {  
    A to H
```

```
}  
  
class : card (name, species, number) {
```

Constructor: {

this.name

this.species

this.number

}

Methods:

getName() { }

getSpecies() { }

getNumber() { }

}

```

class : deck (SpeciesNum) {
    int
    Constructor : {
        for species : SpeciesNums
            for int 1 to 8
                List<card>
                this.deck.add(New.Card( ));
    }

    Methods

    getCard {
        random int from deck.length()
        return card from .deck.pop(int)
    }

    isEmpty()
}

```

```

class : discardPile() {
    Constructor : New List<Card>
    Method : getCards()
}

```



```
class : position ( x, y ) {
```

```
    constructor : {
```

```
        this.x
```

```
        this.y
```

```
    }
```

```
    Methods
```

```
        getX()
```

```
        getY()
```

```
}
```

```
class : Arboretum ( size )
```

```
    constructor : {
```

```
        for (int i = 0; i < size; i++)
```

```
            position card
```

```
            this.hashMap.put ( position(i,j), null);
```

```
    }
```

```
    Methods :
```

```
        addCard ( card, position )
```

if Pos Can Place (position) \rightarrow True/False
Show Current Cards () \rightarrow (set of position, card)
Show Available Place () \rightarrow Set of (position)
Calculate Score (species) int score
Reset Map () \rightarrow after first card insert

Class : player () {

Constructor : {

this.name

this.arboretum = New Arboretum

this.discardPile = New DiscardPile

this.hand cards \rightarrow list <card> = Null

}

Methods : {

get Name () ;

get Arboretum () ;

get Discard Pile () ;

get Hands Card () ;

```

discard(card);
draw(location);
play(card, position);
}

```

✓ Event

```

class : Turn (Player, Deck) {
    player.draw()
    player.draw()
    player.play()
    player.discard()
}

```

```

class : RightToScore ( List<Player> players )
    foreach player : players
        → which is higher

```

```

hashMap
return { PlayerA : {S1, S2, S3} --
        PlayerB : {S4, S5, S6}
        PlayerC : -- -- --
        ----- }

```



```

class: GetScore (Player, List<Species>) {
    Score = 0
    for each specie : Species {
        Score += player.getArboretum().calculateScore(specie)
    }
    return Score
}

```

```

class: GamePlay ( ) {
    New Deck (G)
    New player (A)
    New player (B)
    while (! Deck.isEmpty) {
        New Turn (PlayerA, Deck);
        New Turn (PlayerB, Deck);
    }
    if (Deck.isEmpty) {
        map = RightToScore (List={PlayerA, PlayerB});
        foreach i : map {
            getScore (i[0], i[1]);
        }
    }
}

```

→ compare to winner!