# Overall UML
# Lab 6 Activity 4

**Package::commands**
**<<interface>>**
**CommandInterface**

+ execute() : void

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**Package::lifeform**
**<>**
**LifeForm**

- direction : Direction
- speed : int
...

+ rotate(Direction) : void
+ decrementSpeed() : void
+ getCurrentSpeed(): int
+ getMaxSpeed(): int
+ setLocation(int,int):void
+ resetSpeed(): void
...

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**Package::lifeform**
**<<enumeration>>**
**Direction**

NORTH
EAST
SOUTH
WEST

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**Package::commands**
**<>**
**Command**

- gb: GameBoard

+ execute() : void

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**Package::weapon**
**<>**
**Weapon**

...

...

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**Package::environment**
**Cell**

- newLifeForm : LifeForm
- weaponCount : int
- weapon1 : Weapon
- weapon2 : Weapon
...

+ getLifeForm() : LifeForm
+ addLifeForm(LifeForm) : boolean
+ removeLifeForm() : void
+ getWeapon1() : Weapon
+ getWeapon2() : Weapon
+ addWeapon(Weapon) : boolean
+ removeWeapon(Weapon) : Weapon
...

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**Package::commands**
**AttackCommand**

+ <<create>> AttackCommand(GameBoard)
+ execute() : void

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**Package::commands**
**ReloadCommand**

+ <<create>> ReloadCommand(GameBoard)
+ execute() : void

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**Package::commands**
**PickUpCommand**

+ <<create>> PickUpCommand(GameBoard)
+ execute() : void

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**Package::commands**
**DropCommand**

+ <<create>> DropCommand(GameBoard)
+ execute() : void

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**Package::commands**
**MoveCommand**

+ <<create>> MoveCommand(LifeForm)
+ execute() : void

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**Package::commands**
**RoundUpdateCommand**

+ <<create>> RoundUpdateCommand(GameBoard)
+ execute() : void

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**Package::commands**
**MoveOneSpaceCommand**

+ <<create>> MoveCommand(LifeForm)
+ execute() : void

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**Package::environment**
**Environment**

- <<static>> e : Environment
- gridOfCells : Cell[]
- rows : int
- cols : int

- <<create>> Environment(int, int)
+ getInstance(int, int) : Environment
+ getLifeForm(int, int) : LifeForm
+ addLifeForm(LifeForm, int, int) : boolean
+ removeLifeForm(int, int) : void
+ moveLifeForm(LifeForm): int[]
+ addWeapon(Weapon, int, int) : boolean
+ removeWeapon(Weapon, int, int) : Weapon
+ swapWeapon(): void
+ findNearestEnemy(LifeForm); LifeForm
+ attackNearestEnemy(LifeForm): void
+ getWeapons(int, int) : Weapon[]
...

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**Package::commands**
**<>**
**RotateCommand**

- direction : Direction

+ execute() : void

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**Package::commands**
**RotateNorthCommand**

+ <<create>> RotateNorthCommand(LifeForm)

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**Package::commands**
**RotateSouthCommand**

+ <<create>> RotateSouthCommand(LifeForm)

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**Package::commands**
**RotateEastCommand**

+ <<create>> RotateEastCommand(LifeForm)

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**Package::commands**
**RotateWestCommand**

+ <<create>> RotateWestCommand(LifeForm)

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**Package::ui**
**GameBoard**

- environment : Environment
- Row : int
- Col : int
- selectRow: int
- selectCol: int

+ <<static> main(String[]) : void
+ <<create> Gameboard()
+ update() : void
+ update(int, int) : void
+ getRow() : int
+ getCol() : int
+ getSRow() : int
+ getSCol() : int
+ getEnvironment() : Environment
...

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**package::ui**
**Remote**

- e : Environment
- gb : GameBoard
- commands : Command[]
...

+ <<create>> Remote(GameBoard)
+ buttonPressed(int): void
...