JAVA project Report

on

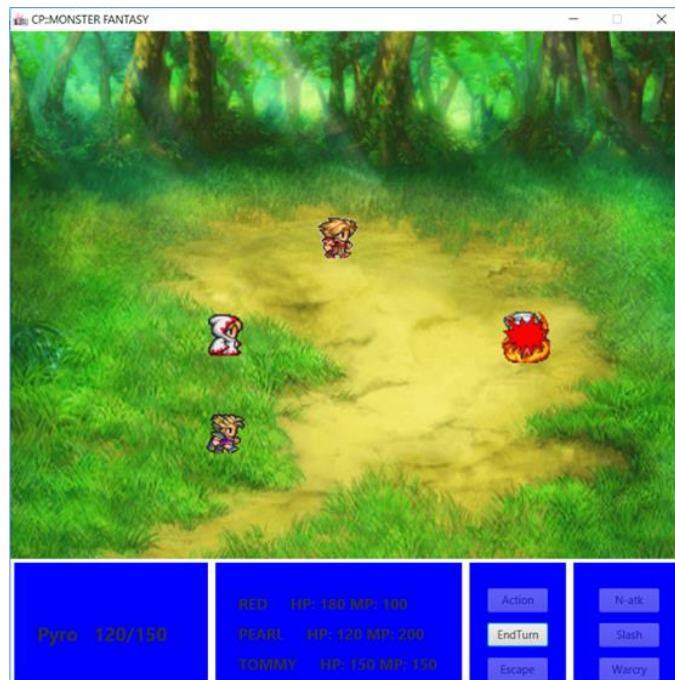# Monster Fantasy

Submitted by

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Subject

Course Programming Methodology Semester 1

CP::Monster fantasy

Monster fantasy is **turn-based rpg** game with three characters that fight along together to defeat enemy. Each of character have own unique skills and special attribute bonus if you choose him/her as main character.

Each enemy also have their own special talent prepare to face them with your plan!!
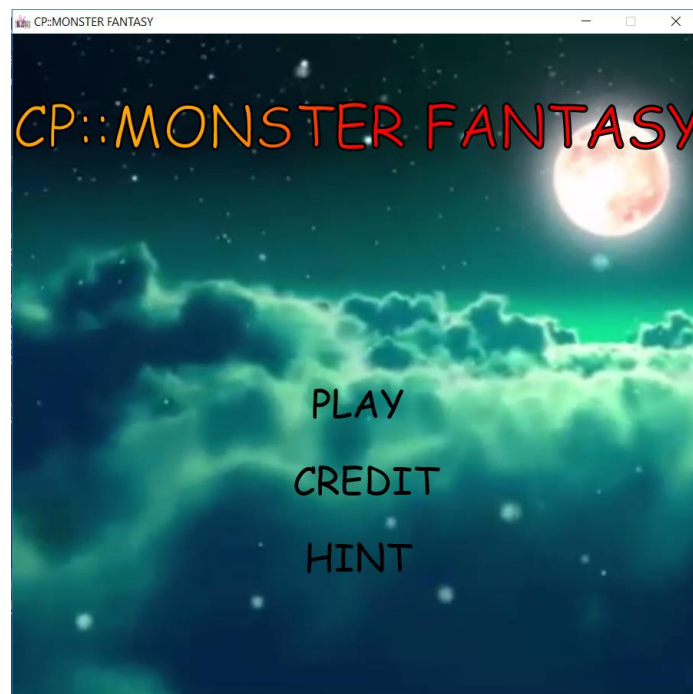
How to play

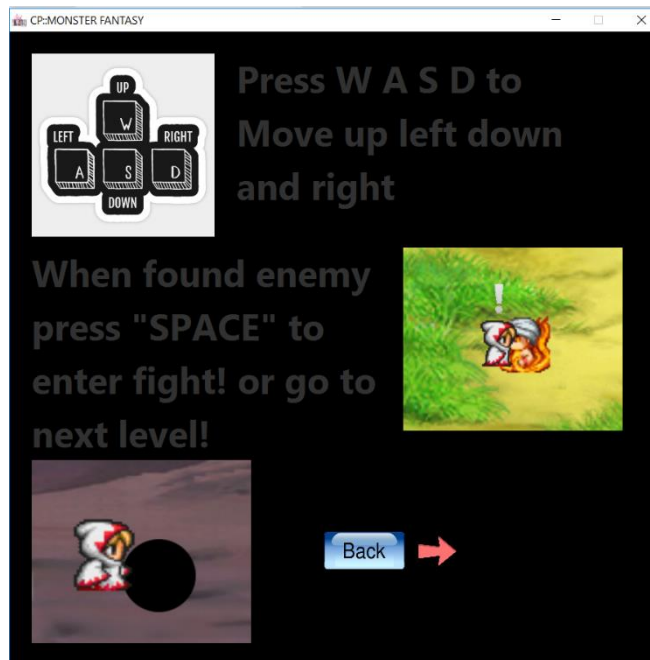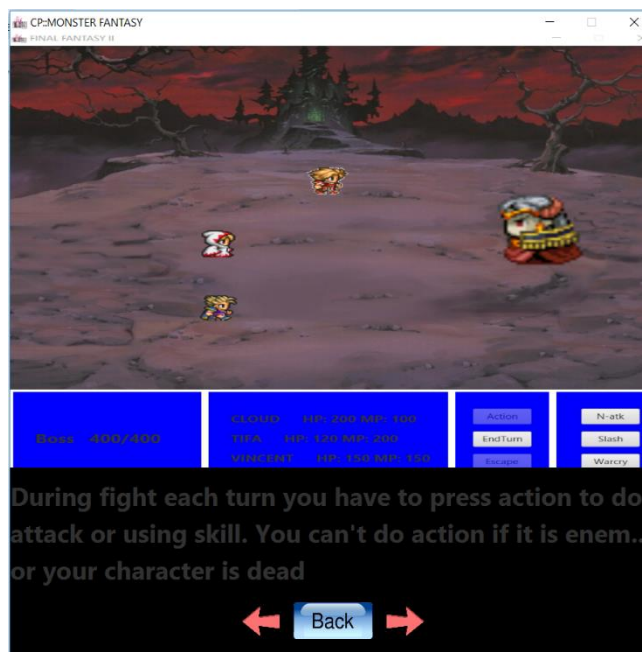Start the game by pressing Enter. You will see main menu.

You have 3 button to click on. Press HINT to learn how to play game.

This scene will show you how to play this game. Press next arrow to go to next scene or press Back to return to main menu.

This scene will show you how to play when you are on battle scene. Press next arrow to go to last hint scene or back arrow to go to previous scene.

One Last Hint!!
If you found that the boss is too powerful try to kill all other enemy in the map first..... GOOD LUCK!!! XD
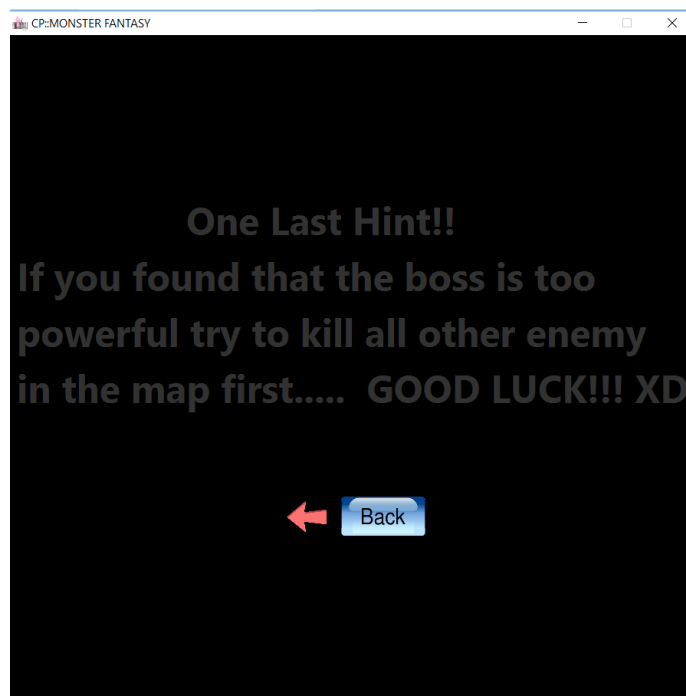
Back

Last hint is a little tip from us to beat the game.XD

This is a game from CP44 student! hope you enjoy!!
Done by:

Mavin Siangyai   6030475021

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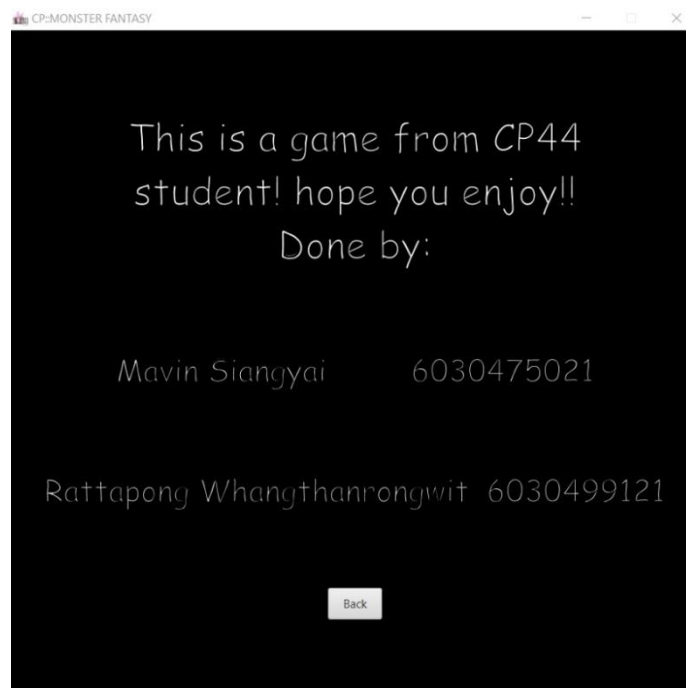
Back

If you press credit button on main menu scene, game will show developer name. Press back to back to main menu.
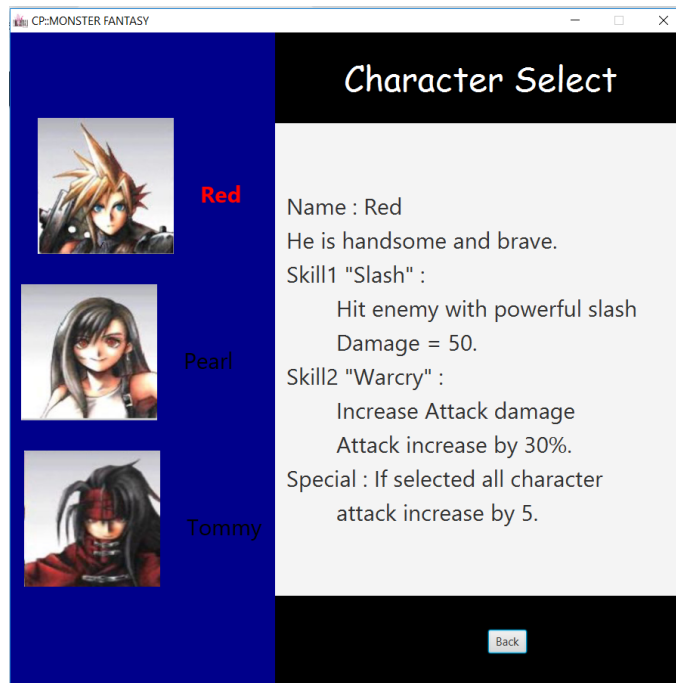
Once you press play button, you can select your main character. Hover your mouse on character picture to see each character skill and special effect for your team. Click on character that you want to play.
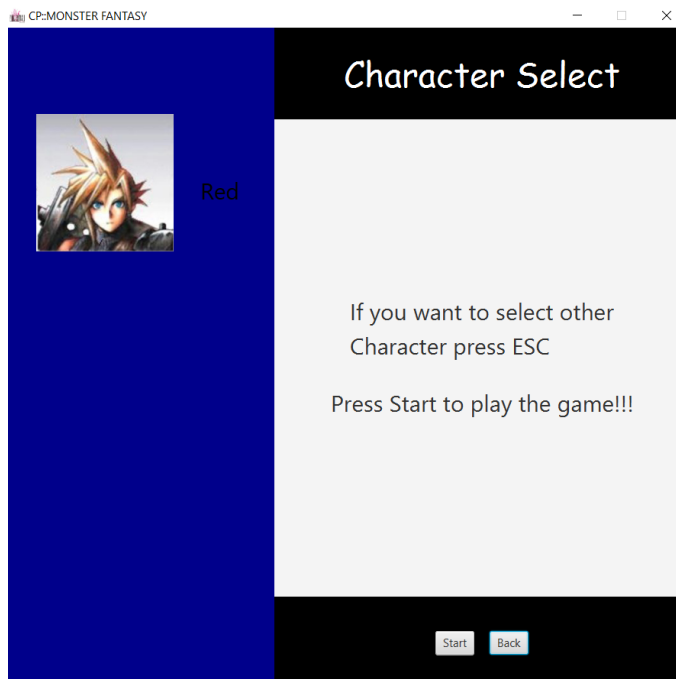
Press start to start game with this character or you can press ESC if you change your mind.
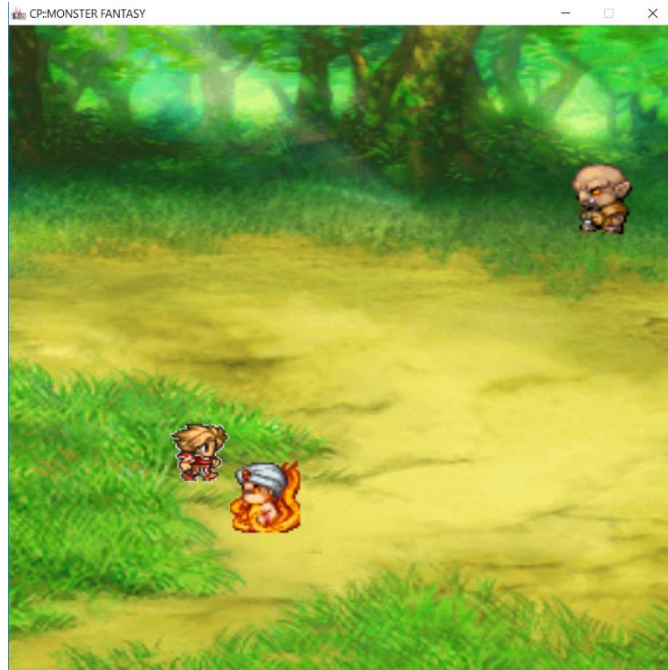
You can walk around the map to choose what enemy you want to fight first.
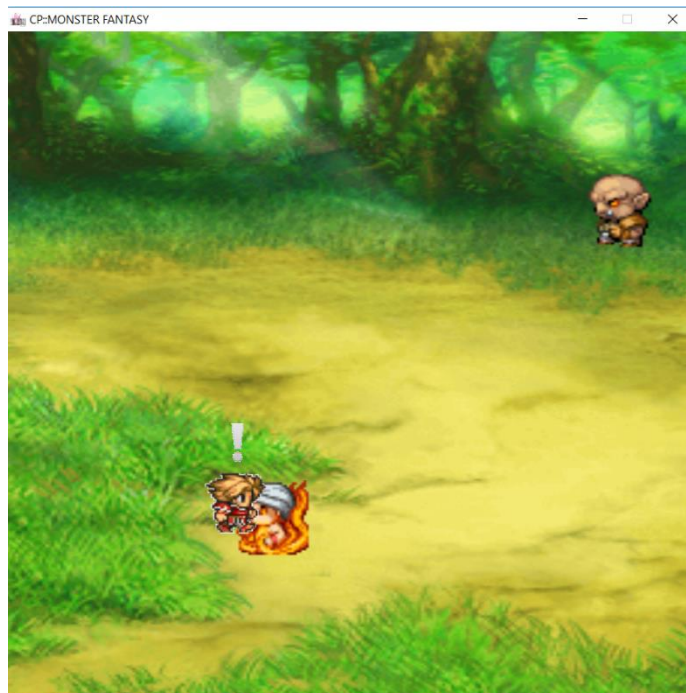
When you walk near enemy you can press spacebar to fight with it. Game will bring you to battle scene.
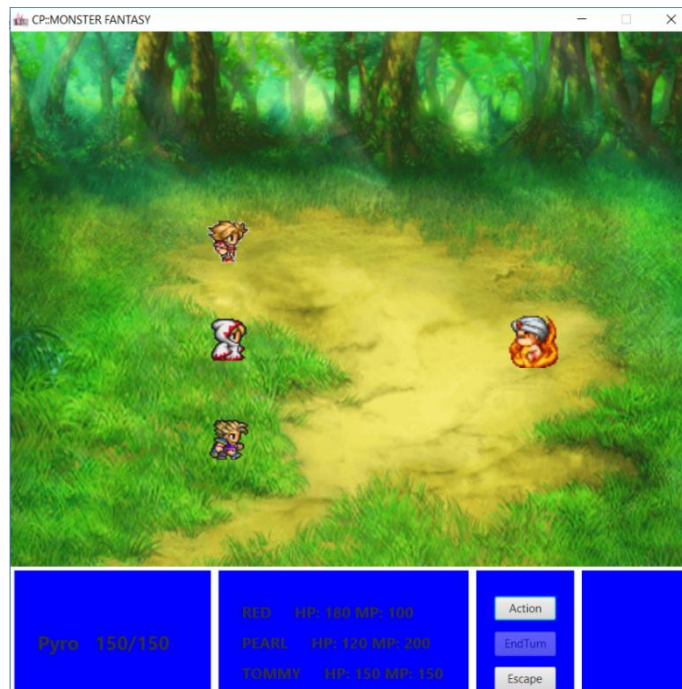
Enemy health is display on left side. Your charcters health point and mana point is show on middle. Press Action to start your move or escape to left battlefield.
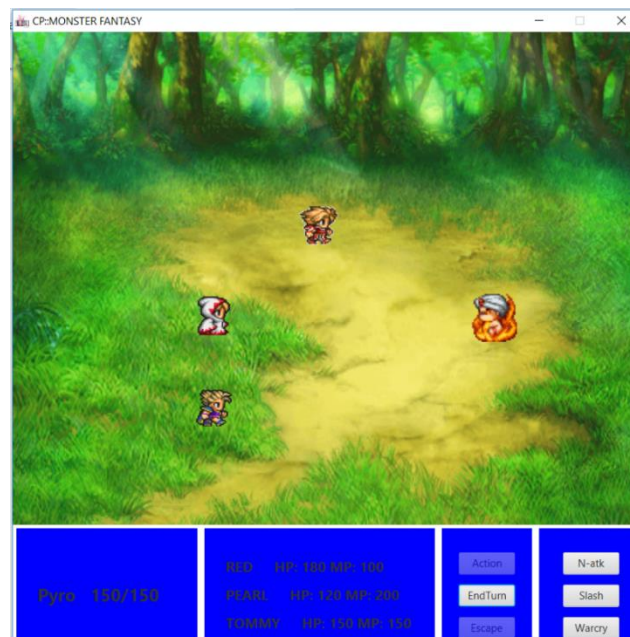
Your character will walk to front if it is his/her turn. Each character can attack or use one of his/her own unique 2 skills. If you use skill it will consume your mana point.
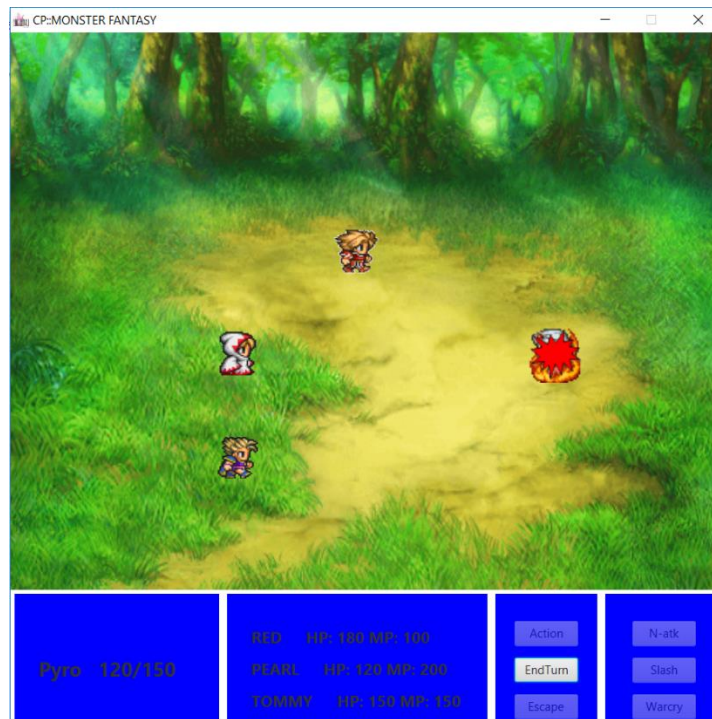
If you use normal attack or hit with damage skill, there will be a hitted effect on enemy. If you don't have enough mana you can't use that skill. Press End turn to give turn to next character.
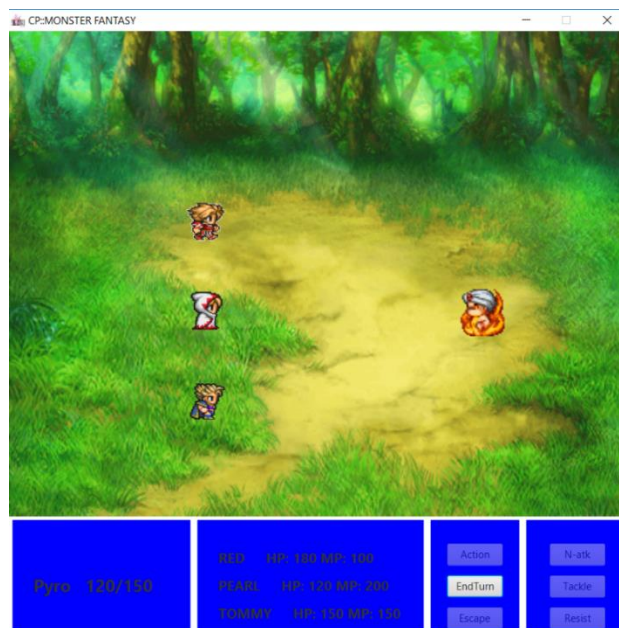
After your 3 characters finish their turn, it is enemy's turn. You can't do nothing but wait him to attack some of your character. Press End turn once you are ready.
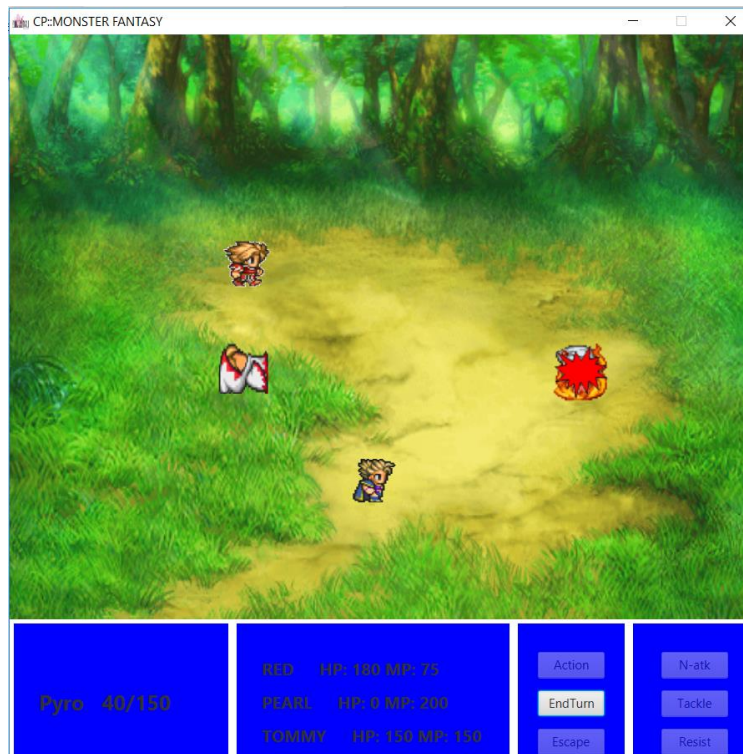
If your character's health point reach 0, that character will dead. You can't do anything on character's turn that already dead.
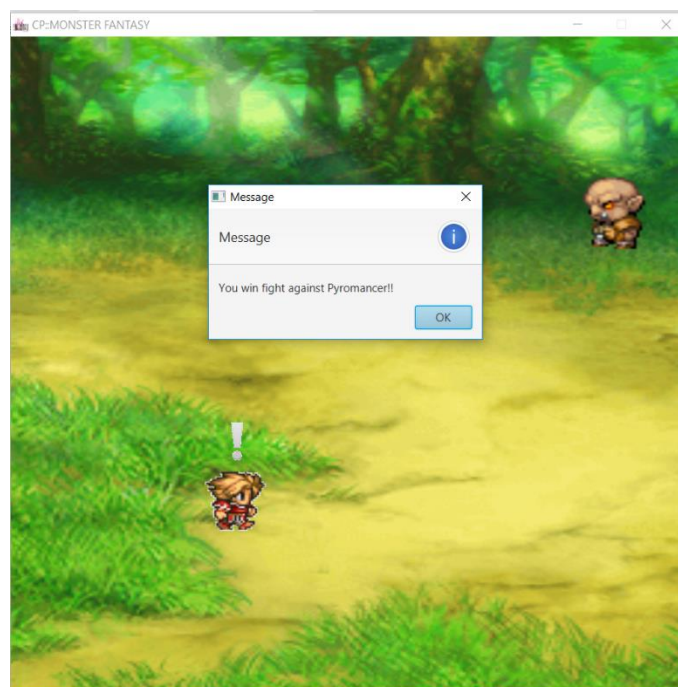
If enemy's health point reach 0, You will get message that you win.
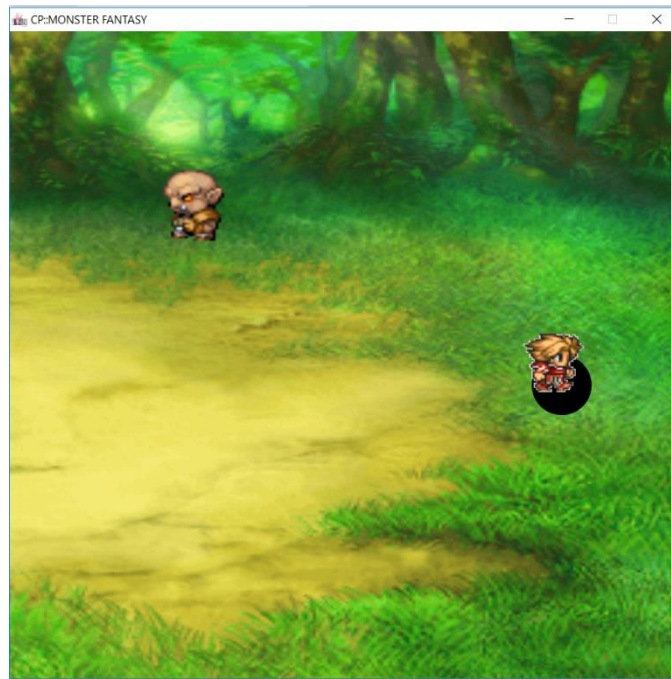
You can press spacebar near the hole to teleport to next map.

There are many enemies in this game. Once you defeat Boss, you will win the game. Don't forget what we told in last hint.

UML diagram of project

GAME
application
- sceneManage: SceneManagement
- GAME()
- start(Stage):void
- main(String[]):void

Character_Ani
Character_Animate
- char1: Image
- char2: Image
- char3: Image
- char4: Image
- charI1: Image
- charI2: Image
- charI3: Image
- charI4: Image
- charII1: Image
- charII2: Image
- charII3: Image
- charII4: Image
- enemy1: Image
- enemy2: Image
- enemy3: Image
- enemy4: Image
- boss: Image
- Character_Ani()
- getEnemy1():Image
- getEnemy2():Image
- getEnemy3():Image
- getEnemy4():Image
- getBoss():Image
- getChar1():Image
- getChar2():Image
- getChar3():Image
- getChar4():Image
- getCharI1():Image
- getCharI2():Image
- getCharI3():Image
- getCharI4():Image
- getCharII1():Image
- getCharII2():Image
- getCharII3():Image
- getCharII4():Image

AllCharacter
Character_Logic
- Characters: ArrayList<Character>
- myHero: ArrayList<Character>
- AllCharacter()
- getCharacters():ArrayList<Character>
- getMyHero():ArrayList<Character>

Character
Character_Logic
- name: String
- health: int
- MAXHEALTH: int
- damage: int
- default_damage: int
- defend: int
- default_defense: int
- allSkill: ArrayList<Skill>
- isAlive: boolean
- mana: int
- MAXMANA: int
- Character(String,int,int,int,int)
- takeDamage(int):boolean
- attack(Character):boolean
- addSkill(String,int,String,int,String):void
- useSkill(int,Character):void
- getName():String
- getHeal(int):void
- getHealth():int
- getDamage():int
- getMAXHEALTH():int
- getMAXMANA():int
- isAlive():boolean
- setIsAlive(boolean):void
- setMAXHEALTH(int):void
- setHealth(int):void
- setDamage(int):void
- setDefend(int):void
- getDefend():int
- getMana():int
- setMana(int):void
- getDefault_damage():int
- getDefault_defense():int

Boss
Character_Logic
- life: int
- Boss(String,int,int,int,int)
- takeDamage(int):boolean
- reicarnate():void

Reicarnation
«Java Interface» Character_Logic
- reicarnate():void

Skill
Character_Logic
- name: String
- consuming: int
- Skill(String,int)
- skrillTo(Character):void
- getName():String
- getConsuming():int

Pearl
Character_Animate
- name: Label
- talent: Label
- skill1: Label
- skill2: Label
- special: Label
- Pearl()
- set():void
- clear():void

Ready
Character_Animate
- esc: Label
- go: Label
- Ready()
- set():void
- clear():void

InsufficientManaException
Character_Logic
- serialVersionUID: long
- need: int
- InsufficientManaException(int)
- getAmount():int
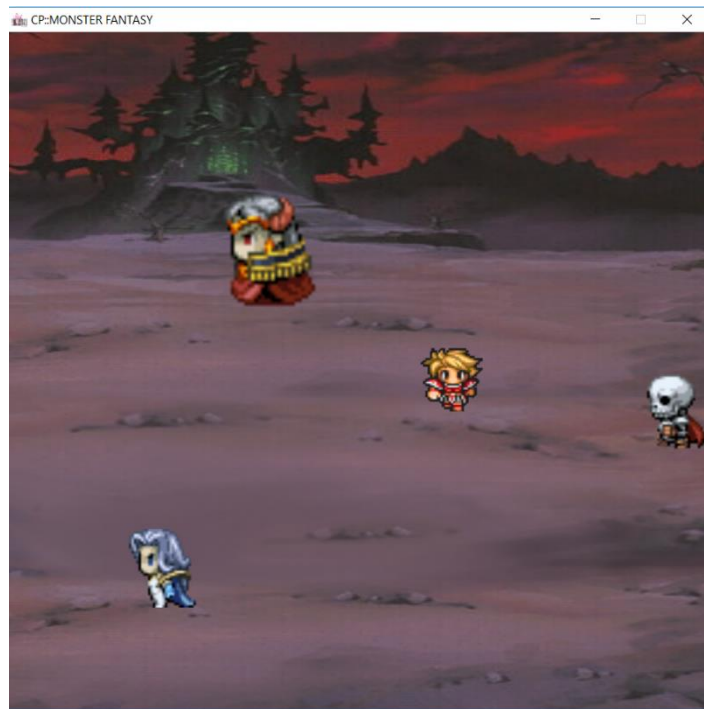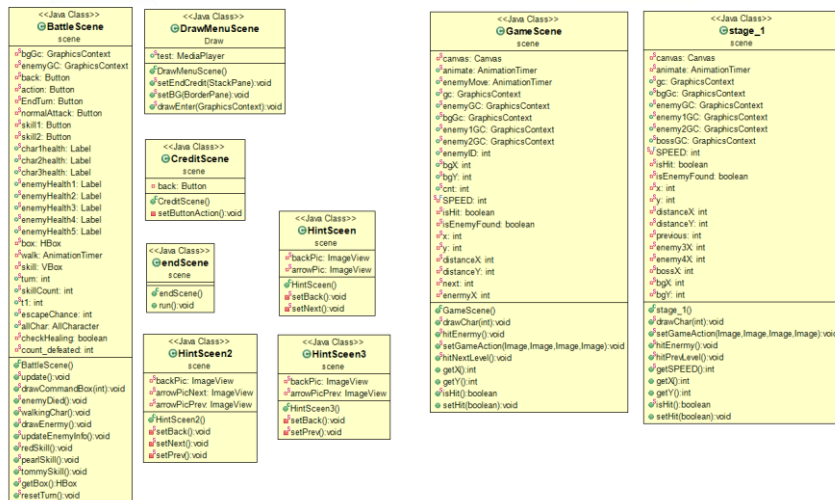
Skeleton
Character_Logic
- life: int
- Skeleton(String,int,int,int,int)
- takeDamage(int):boolean
- reicarnate():void

BuffSkill
Character_Logic
- buffType: String
- total: int
- BuffSkill(String,int,String,int)
- setBuffType(String):void
- skillTo(Character):void

DamageSkill
Character_Logic
- damage: int
- DamageSkill(String,int,int)
- skillTo(Character):void

Red
Character_Animate
- name: Label
- talent: Label
- skill1: Label
- skill2: Label
- special: Label
- Red()
- set():void
- clear():void

Tommy
Character_Animate
- name: Label
- talent: Label
- skill1: Label
- skill2: Label
- special: Label
- Tommy()
- set():void
- clear():void

Pyromancer
Character_Logic
- Pyromancer(String,int,int,int,int)
- attack(Character):boolean

DebuffSkill
Character_Logic
- debuffType: String
- total: int
- DebuffSkill(String,int,String,int)
- setDebuffType(String):void
- skillTo(Character):void

HealSkill
Character_Logic
- heal: int
- HealSkill(String,int,int)
- skillTo(Character):void
- getHeal():int

Warlock
Character_Logic
- Warlock(String,int,int,int,int)
- attack(Character):boolean

BattleScene
scene
- bgGc: GraphicsContext
- enemyGC: GraphicsContext
- back: Button
- action: Button
- EndTurn: Button
- normalAttack: Button
- skill: Button
- skill2: Button
- char1health: Label
- char2health: Label
- char3health: Label
- enemyHealth1: Label
- enemyHealth2: Label
- enemyHealth3: Label
- enemyHealth4: Label
- enemyHealth5: Label
- box: HBox
- walk: AnimationTimer
- skill: VBox
- turn: int
- skillCount: int
- t1: int
- escapeChance: int
- allChar: AllCharacter
- checkHealing: boolean
- count_defeated: int
- BattleScene()
- update():void
- drawCommandBox(int):void
- enemyDied():void
- walkingChar():void
- drawEnemy():void
- updateEnemyInfo():void
- redSkill():void
- pearlSkill():void
- tommySkill():void
- getBox():HBox
- resetTurn():void

DrawMenuScene
Draw
- test: MediaPlayer
- DrawMenuScene()
- setEndCredit(StackPane):void
- setBG(BorderPane):void
- drawEnter(GraphicsContext):void

CreditScene
scene
- back: Button
- CreditScene()
- setButtonAction():void

HintScene
scene
- backPic: ImageView
- arrowPic: ImageView
- HintScene()
- setBack():void
- setNext():void

endScene
scene
- endScene()
- run():void

HintScene2
scene
- backPic: ImageView
- arrowPicNext: ImageView
- arrowPicPrev: ImageView
- HintScene2()
- setBack():void
- setNext():void
- setPrev():void

HintScene3
scene
- backPic: ImageView
- arrowPicPrev: ImageView
- HintScene3()
- setBack():void
- setPrev():void

GameScene
scene
- canvas: Canvas
- animate: AnimationTimer
- enemyMove: AnimationTimer
- gc: GraphicsContext
- enemyGC: GraphicsContext
- bgGc: GraphicsContext
- enemy1GC: GraphicsContext
- enemy2GC: GraphicsContext
- enemyID: int
- bgX: int
- bgY: int
- cnt: int
- SPEED: int
- isHit: boolean
- isEnemyFound: boolean
- x: int
- y: int
- distanceX: int
- distanceY: int
- next: int
- enemyX: int
- GameScene()
- drawChar(int):void
- hitEnemy():void
- setGameAction(Image,Image,Image):void
- hitNextLevel():void
- getX():int
- getY():int
- isHit():boolean
- setHit(boolean):void

stage_1
scene
- canvas: Canvas
- animate: AnimationTimer
- gc: GraphicsContext
- bgGc: GraphicsContext
- enemyGC: GraphicsContext
- enemy1GC: GraphicsContext
- enemy2GC: GraphicsContext
- bossGC: GraphicsContext
- SPEED: int
- isHit: boolean
- isEnemyFound: boolean
- x: int
- y: int
- distanceX: int
- distanceY: int
- previous: int
- enemy3X: int
- enemy4X: int
- bossX: int
- bgX: int
- bgY: int
- stage_1()
- drawChar():void
- setGameAction(Image,Image,Image):void
- hitEnemy():void
- hitPrevLevel():void
- getSPEED():int
- getX():int
- getY():int
- isHit():boolean
- setHit(boolean):void

MenuScene
scene
- buttons: VBox
- playCanvas: Canvas
- creditCanvas: Canvas
- hintCanvas: Canvas
- enterCanvas: Canvas
- playGC: GraphicsContext
- creditGC: GraphicsContext
- hintGC: GraphicsContext
- enterGC: GraphicsContext
- count: int
- MenuScene()
- setMenuAction():void
- setPlayCanvasAction():void
- setCreditCanvasAction():void
- setExitCanvasAction():void

PlayScene
scene
- sceneLabel: Label
- red: Red
- pearl: Pearl
- tommy: Tommy
- ready: Ready
- CharacterSelected: VBox
- firstChar: HBox
- secondChar: HBox
- thirdChar: HBox
- firstGC: GraphicsContext
- secondGC: GraphicsContext
- thirdGC: GraphicsContext
- playSceneToMenu: Button
- start: Button
- label1: Text
- label2: Text
- label3: Text
- information: BorderPane
- CharToPlay: int
- PlayScene()
- setBackAction():void
- setPlaySceneAction():void
- setStartAction():void
- setFirstCharAction():void
- setSecondCharAction():void
- setThirdCharAction():void

SceneManagement
SceneManage
- primaryStage: Stage
- menu: MenuScene
- Credit: CreditScene
- charAni: Character_Ani
- play: PlayScene
- game: GameScene
- stage1: stage_1
- battle: BattleScene
- hint: HintScene
- hint2: HintScene2
- hint3: HintScene3
- end: endScene
- menuScene: Scene
- creditScene: Scene
- playScene: Scene
- gameScene: Scene
- stage1Scene: Scene
- battleScene: Scene
- hintScene: Scene
- hintScene2: Scene
- hintScene3: Scene
- endScene: Scene
- SceneManagement(Stage)
- setUp():void
- switchScene(Scene):void

soundManagement
sound
- media: MediaPlayer
- gunSound: MediaPlayer
- selectSound: MediaPlayer
- confirmSound: MediaPlayer
- gameSound: MediaPlayer
- enterSound: MediaPlayer
- enterFightSound: MediaPlayer
- soundManagement()
- enterFightSound():void
- music():void
- stopMusic():void
- gun():void
- charSelect():void
- confirmed():void
- gameSound1():void
- gameSound2():void
- battleSound():void
- bossSound():void
- stopGameSound():void
- enterSound():void

RenderableHolder
SharedObject
- char1: Image
- char2: Image
- char3: Image
- char4: Image
- charI1: Image
- charI2: Image
- charI3: Image
- charI4: Image
- charII1: Image
- charII2: Image
- charII3: Image
- charII4: Image
- enemy1: Image
- enemy2: Image
- enemy3: Image
- enemy4: Image
- boss: Image
- exclamation: Image
- battle: Image
- background1: Image
- background2: Image
- gameIcon: Image
- char1Image: Image
- char2Image: Image
- char3Image: Image
- char1Dead: Image
- char2Dead: Image
- char3Dead: Image
- wasd: Image
- enemyFound: Image
- back: Image
- arrowNext: Image
- arrowPrev: Image
- nextLevel: Image
- fightPic: Image
- attacking: AudioClip
- buffing: AudioClip
- debuffing: AudioClip
- tackle: AudioClip
- healing: AudioClip
- attacked: Image
- RenderableHolder()
- loadResource():void

Class detail :

Package Character_Logic

Class Character

Field

String name	Name of character.
Int health	Health point of charcter.
Int MAXHEALTH	Max health point of character.
Int damage	Damage of character.
Int default_damage	Default damage of character.
Int defend	Defend of character
Arraylist<skill> allSkill	Arraylist that contain skill of character.
Boolean isAlive	Boolean of character status.
Int mana	Mana point of character.
Int MAX_MANA	Max mana point of character.

Constructor

Character(String name, int damage, int defend, int maxHealth, int mana)	- Initialize name of character - Initialize damage of character - Initailize defend and default defend of character - Initialize max health point and health point of character - Initialize mana point and default mana point of character

Method

Boolean takeDamage(int damage)	Deal damage to character after minus with defense
Boolean attack(Character target)	Attack target equal to damage
Void addSkill(String name, int consuming, String type, int special, String specialType)	Add new skill to character.
Void useSkill(int number, Character target) throws InsufficientManaException	Use skill to target. Throw error if you don't have enough mana.
Void getHealed(int heal)	Increase character health point equal to heal.
String getName()	Return name of character

Int getHealth()	Return currently health point of character
Int getDamage()	Return damage of character.
Int getMAXHEALTH()	Return max health point of character
Int getMana()	Return currently mana point of character
Int getMAXMANA()	Return max mana point of character.
Int getDefend()	Return defend of character
Int getDefault_damage()	Return default damage of character
Int getDefault_defend()	Return default defend of character
Boolean isAlive()	Return character's status.
Void setIsAlive(alive)	Set character's status
Void setMAXHEALTH(int mAXHEALTH)	Set max health point of character
Void setHealth(health)	Set health point of character

Void setDamage()	Set damage of character
Void setDefend()	Set defend of character

Class Skill(Abstract)

Field

String name	Name of skill
Int consuming	Mana that consume when use this skill

Constructor

Skill(String name,int consuming)	- Initialize name of skill. - Initialize mana consuming of skill

Method

Abstract void skillTo(Character target)	Use skill to target.
String getName()	Return name of skill

Int getConsuming()	Return how much mana is needed.

Class DamageSkill extends Skill

Field

Int damage()	Damage of skill.

Constructor

DamageSkill(String name,int consuming,int damage)	- Initialize name of skill - Initialize mana consuming of skill - Intialize damage of skill

Method

Void skillTo(Character target)	Use skill to target.

Class BuffSkill extends Skill

Field

String buffType	Type of buff skill
Int total	Amount of buff.

Constructor

BuffSkill(String name,int consuming,String buffType,int total)	- Initialize name of skill - Initialize mana consuming of skill - Initialize buff type. - Initialize amount of buff.

Method

Void setBuffType(String buffType)	Set type of buff skill
Void skillTo(Character Target)	Use skill to target.

Class DebuffSkill extends Skill

Field

String debuffType	Type of buff skill
Int total	Amount of debuff.

Constructor

BuffSkill(String name,int consuming,String debuffType,int total)	- Initialize name of skill - Initialize mana consuming of skill - Initialize debuff type. - Initialize amount of debuff.

Method

Void setDebuffType(String buffType)	Set type of debuff skill
Void skillTo(Character Target)	Use skill to target.

Class HealSkill extends Skill

Field

Int heal	Amount of heal.

Constructor

HealSkill(String name,int consuming, int heal)	- Initialize name of skill - Initialize mana consuming of skill - Initialize heal amount

Method

Void skillTo(Character Target)	Use skill to target.

Class Pyromancer extends Character

Constuctor

Pyromancer(String name,int damage, int defend, int maxhealth, int mana)	- Initialize name of character - Initialize damage of character

	- Initailize defend and default defend of character
	- Initialize max health point and health point of character
	- Initialize mana point and default mana point of character

Method

Boolean attack(Character target)	Random attack target between 1-3 times

Class Skeleton extends Character implements Reicarnation

Field

Int life	Amount of character life.

Constuctor

Skeleton(String name,int damage, int defend, int maxhealth, int mana)	- Initialize name of character
	- Initialize damage of character
	- Initailize defend and default defend of character
	- Initialize max health point and health point of character

	- Initialize mana point and default mana point of character

Boolean takeDamage(int damage)	If character health point reach 0 while life left, reicarnate.
Void Reicarnate()	Character is reicarnate. Health point and mana point of character will be filled to max.

Class Warlock extends Character

Constuctor

Warlock(String name,int damage, int defend, int maxhealth, int mana)	- Initialize name of character - Initialize damage of character - Initailize defend and default defend of character - Initialize max health point and health point of character - Initialize mana point and default mana point of character

Method

Boolean attack(Character target)	Heal character 50% of damage he deal.

Class Boss extends Character implements Reicarnation

Field

Int life	Amount of character life.

Constuctor

Boss(String name,int damage, int defend, int maxhealth, int mana)	- Initialize name of character - Initialize damage of character - Initailize defend and default defend of character - Initialize max health point and health point of character - Initialize mana point and default mana point of character - Set amount of life to 2.

Method

Boolean takeDamage(int damage)	If character health point reach 0 while life left, reicarnate.
Void Reicarnate()	Character is reicarnate. Health point and mana point of character will be filled to max. Also, double attack and defend.

Class Reicarnation(Interface)

Method

Void reicarnate()	Interface method.

Class InsufficientManaException extends Exception

Field

Int need	Amount of mana needed to be enough to use skill.

Constructor

InsufficientManaException(int need)	- Initialize need.

Method

Int getAmount()	Return need

Class AllCharacter

Field

Arraylist<Character> Characters	Arraylist of all character.

Arraylist<Character> myHero	Arraylist of all hero.

Constructor

AllCharacter()	- Initialize hero to Characters and myHero arraylist. - Initialize other character to Characters arraylist.

Method

ArrayList<Character> getCharacters()	Return Characters arraylist
ArrayList<Character> getMyHero()	Return myHero arraylist

Package Character_Animate

Class Character_Ani

Field

Image char1, char2, char3, char4	Variable for character 1 animation.
Image charII1, charII2, charII3, charII4	Variable for character 2 animation.
Image charIII1, charIII2, charIII3, charIII4	Variable for character 3 animation.

Image enemy1, enemy2, enemy3 , enemy4, boss	Variable for image for enemies.

Constructor

Character_Ani()	Assign to image to each variable

Method

Getters	Getter for each field.

Class Red extends VBox

Field

Label name, talent, skill1, skill2, special	Variable for detail of Red

Constructor

Red()	Set alignment and text for each field

Method

Void set()	Add label to class.
Void clear()	Remove label from class

Class Pearl extends VBox

Field

Label name, talent, skill1, skill2, special	Variable for detail of Pearl

Constructor

Pearl()	Set alignment and text for each field

Method

Void set()	Add label to class.
Void clear()	Remove label from class

Class Tommy extends VBox

Field

Label name, talent, skill1, skill2, special	Variable for detail of Tommy

Constructor

Tommy()	Set alignment and text for each field

Method

Void set()	Add label to class.

Void clear()	Remove label from class

Class Ready extends VBox

Field

Label esc, go	Field for text on confirm character scene

Constructor

Ready()	Set alignment and text for each field

Method

Void set()	Add label to class.
Void clear()	Remove label from class

Package Draw

Class DrawMenuScene extends Canvas

Method

void setEndCredit(StackPane root)	Run an end credit with song
void setBG(BorderPane centerPane)	Drawing background for menu scene.
void drawEnter()	Run background animation in menu

Package scene

Class BattleScene extends BorderPane

Field

GraphicsContext bgGC, enemyGC	Field for graphic context in battle scene.
Button back, action, EndTurn, normalAttack, skill1, skill2;	Field for button in battle scene.
Label char1health, char2health, char3health, enemyHealth1, enemyHealth2, enemyHealth3, enemyHealth4, enemyHealth5	Field for health point of each character
Static HBox box	HBox for assign other field
AnimationTimer walk	Field for walking animation in battle scene
VBox skill	VBox for contain skill label
int turn	Variable for counting turn in battle scene
int skillCount	Variable for counting skill in battle scene
int escapeChance	Variable for counting escape chance

int count_defeated	Variable for counting enemy that is defeated.
Static AllCharacter allchar	AllCharacter class.
Static boolean checkHealing	Check if you use heal skill this turn.

Constructor

BattleScene()	Assign and set position for each field

Method

Void update()	- Updating character health point and mana point for each turn. - Remove character turn if that character is dead.
Void drawCommandBox(int enemyID)	- Draw enemy in battle scene - Assign label of detail of character - Assign button in battle scene
Void enemyDied()	- If enemy dead, tell player that you win. - Delete dead enemy from map - Go to end scene if player defeat boss
Void walkingChar()	Make character walking to front when it is his/her turn.
Void drawEnermy()	Draw enemy in battle scene

Void updateEnemyInfo()	Updating enemy health point in each turn.
Void redSkill()	Method for Red turn
Void pearlSkill()	Method for Pearl turn
Void tommySkill()	Method for Tommy turn
HBox getBox()	Return Hbox
Void resetTurn()	Set turn back to 1

Class CreditScene extends VBox

Field

Button back	Back button

Constructor

CreditScene()	Assign detail that appear on credit scene

Method

Void setButtonAction()	Set action of back button.

Class endScene extends StackPane

Constructor

endScene()	-

Method

Void run()	Run end credit

Class GameScene extends StackPane

Field

Canvas canvas	Canvas for game scene.
AnimationTimer animate, enemyMove	Field for animation in game scene
GraphicContext gc, enemyGC, bgGC, enemyGC1, enemy2GC	Graphic context in game scene
Int enemyID	Variable for checking enemy
Int bgX, bgY	Variable for background position
Final int SPEED	Speed of character movement
Boolean isHit	Check if your character hit enemy

Boolean isEnemyFound	Check if your character found enemy
Int x, y, distanceX, distanceY, next, enermyX	Field for position of each thing

Constructor

GameScene()	- Set game scene - Add field to scene
Void drawChar(int charToPlay)	Draw character that player choose
Void hitEnermy()	Run animation if character walk near enemy
Void setGameAction(Image char1, Image char2, Image char3, Image char4)	Set button for control a character and other thing in this class.
Void hitNextLevel()	Change character to second map if player want.
Int getX(), getY()	Getter for axis x and y
Boolean isHit()	Return if your character is near enemy or not.
Void setHit(boolean isHit_in)	Setter for isHit.

Class HintSceen extends VBox

Field

ImageView backPic	Image for back to main menu button
ImageView arrowPic	Image for arrow button

Constructor

HintSceen()	- Set hint scene - Assign detail to hint scene - Add button to hint scene

Method

Void setBack()	Set action of back button to go back to main menu
Void setNext()	Set action of next arrow to go to hint scene2

Class HintSceen2 extends VBox

Field

Imageview backPic	Image for back to main menu botton
Imageview arrowPicNext	Image for go to next hint button

Imageview arrowPicPrev	Image for go back to previous page button

Constructor

HintSceen2()	- Set hint scene 2
	- Assign detail to hint scene2
	- Add button to hint scene2

Method

Void setBack()	Set action of back button to go back to main menu
Void setNext()	Set action of next arrow to go to hint scene3
Void setPrev()	Set action of back arrow to go to hint scene1

Class HintSceen3 extends VBox

Field

Imageview backPic	Image for back to main menu botton
Imageview arrowPicPrev	Image for go back to previous page button

Constructor

HintSceen3()	- Set hint scene 3

	- Assign detail to hint scene3
	- Add button to hint scene3

Method

Void setBack()	Set action of back button to go back to main menu
Void setPrev()	Set action of back arrow to go to hint scene2

Class MenuScene extends BorderPane

Field

VBox buttons	Field for button
Canvas playCanvas, creditCanvas, hintCanvas, enterCanvas	Canvas in menu scene
GraphicsContext playGC, creditGC, hintGC, enterGC	Graphic context in menu scene
Int count	Check if press enter more than 1 time

Constructor

MenuScene()	- Set menu scene
	- Add button on menu scene

Method

setMenuAction()	Set action when starting game
setPlayCanvasAction()	Set canvas for click play button
setCreditCanvasAction()	Set canvas for click credit button
setExitCanvasAction()	Set canvas for exit game

Class PlayScene extends BorderPane

Field

Label sceneLabel	Label for play scene
Red red Pearl pearl Tommy tommy	Character to select
Ready ready	Confirm character scene
VBox CharacterSelected	VBox character to select
HBox firstChar, secondChar, thirdChar	Field for character detail
PlayScene()	- Set play scene - Add field to play scene
Void setBackAction()	Set action for back button

Void setPlaySceneAction()	Set action on play scene
Void setStartAction()	Set special effect from character you choose
Void setFirstCharAction()	Set action if you choose first character
Void setSecondCharAction()	Set action if you choose second character
Void setThirdCharAction()	Set action if you choose third character

Class stage_1 extends StackPane

Field

Canvas canvas	Canvas for game scene 2.
AnimationTimer animate	Field for animation in second map
GraphicContext gc, enemyGC, bgGC, enemyGC1, enemy2GC, bossGC	Graphic context in second map
Final int SPEED	Speed of character movement
Boolean isHit	Check if your character hit enemy
Boolean isEnemyFound	Check if your character found enemy
Int x, y, distanceX, distanceY, previous	Field for position

Int enemy3X, enemy4X, bossX	Field for enemy position
Int bgX, bgY	Variable for background position

Constructor

stage_1()	- Set second map
	- Add field to scene

Method

Void drawChar(int charToPlay)	Draw character that player choose
Void hitEnermy()	Run animation if character walk near enemy
Void setGameAction(Image char1, Image char2, Image char3, Image char4)	Set button for control a character and other thing in this class.
Void hitPrevLevel()	Move character to first map if player want.
Int getX(), getY()	Getter for axis x and y
Boolean isHit()	Return if your character is near enemy or not.
Void setHit(boolean isHit_in)	Setter for isHit.
Int getSPEED()	Return speed

Package SceneManagement

Class SceneManagement

Field

Stage primaryStage	Primary stage
MenuScene menu	Menu scene
CreditScene Credit	Credit scene
Character_Ani charAni	Character animation
PlayScene play	Play scene
GameScene game	Game scene map 1
stage_1 stage1	Game scene map 2
BattleScene battle	Battle scene
HintSceen hint	Hint scene 1
HintSceen2 hint2	Hint scene 2
HintSceen3 hint3	Hint scene 3
endScene end	End credit scene
Scene menuScene	Scene for menu
Scene creditScene	Scene for credit scene

Scene playScene	Scene for play scene
Scene gameScene	Scene for map 1
Scene stage1Scene	Scene for map 2
Scene battleScene	Scene for battle scene
Scene hintScene	Scene for hint scene
Scene hintScene2	Scene for hint scene 2
Scene hintScene3	Scene for hint scene 3
Scene endScene	Scene for end credit

Constructor

SceneManagement(Stage stage)	Assign primary stage

Method

Void setUp()	Set primary stage
Void switchScene(Scene scene)	Change scene to parameter scene

Package SharedObject

Class RenderableHolder

Field

Image char1, char2, char3, char4	Image for character 1

Image charII1, charII2, charII3, charII4	Image for character 2
Image charIII1, charIII2, charIII3, charIII4	Image for character 3
Image enemy1, enemy2, enemy3, enemy4, boss	Image for enemy and boss
Image exclamation, battle, background1, background2, gameIcon	Image for background scene
Image char1Image, char2Image, char3Image	Image in choosing character scene
Image char1Dead, char2Dead, char3Dead	Image when character is dead
Image wasd, enemyFound, back, arrowNext, arrowPrev, nextLevel, fightPic	Image of button and effect
AudioClip attacking,buffing,debuffing,tackle,healing	Sound for effect
Image attacked	Image when get attacked

Method

Void loadResource()	Assign image and sound to field variable

Package sound

Class soundManagement

Field

MediaPlayer media, gunSound, selectSound, confirmSound, gameSound, enterSound, enterFightSound	Sound for effect and background scene.

Method

Void enterFightSound()	Sound for get into fight scene
Void music()	Sound for running in background
Void stopMusic()	Sound for stop playing music
Void gun()	Sound effect for clicking button
Void charSelect()	Sound effect for selecting character
Void confirmed()	Sound effect for confirming character
Void gameSound1()	Sound for running in game scene background
Void gameSound2()	Sound for running in game scene background 2

Void battleSound()	Sound for running in battle scene
Void bossSound()	Sound for running in boss fight scene
Void stopGameSound()	Stop running sound in game
Void enterSound()	Sound effect for enter button

Package application

Class GAME extends Application

Field

SceneManagement scenemanagement	Scene management in application

Method

Void start(Stage primaryStage)	Start game through scenemanagement class
Void main(String[] args)	Run application