

Tap_Kappa Documentation



Created by

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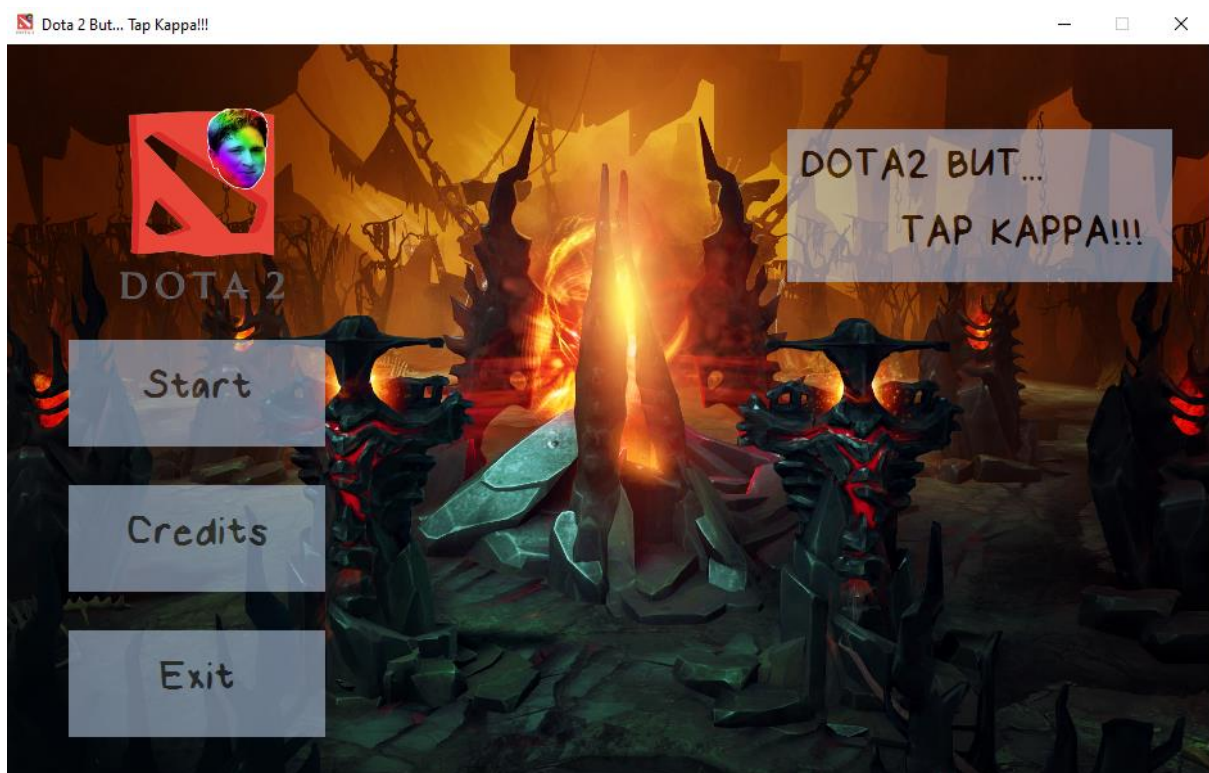
DOTA 2 But... Tap Kappa!!!

Introduction

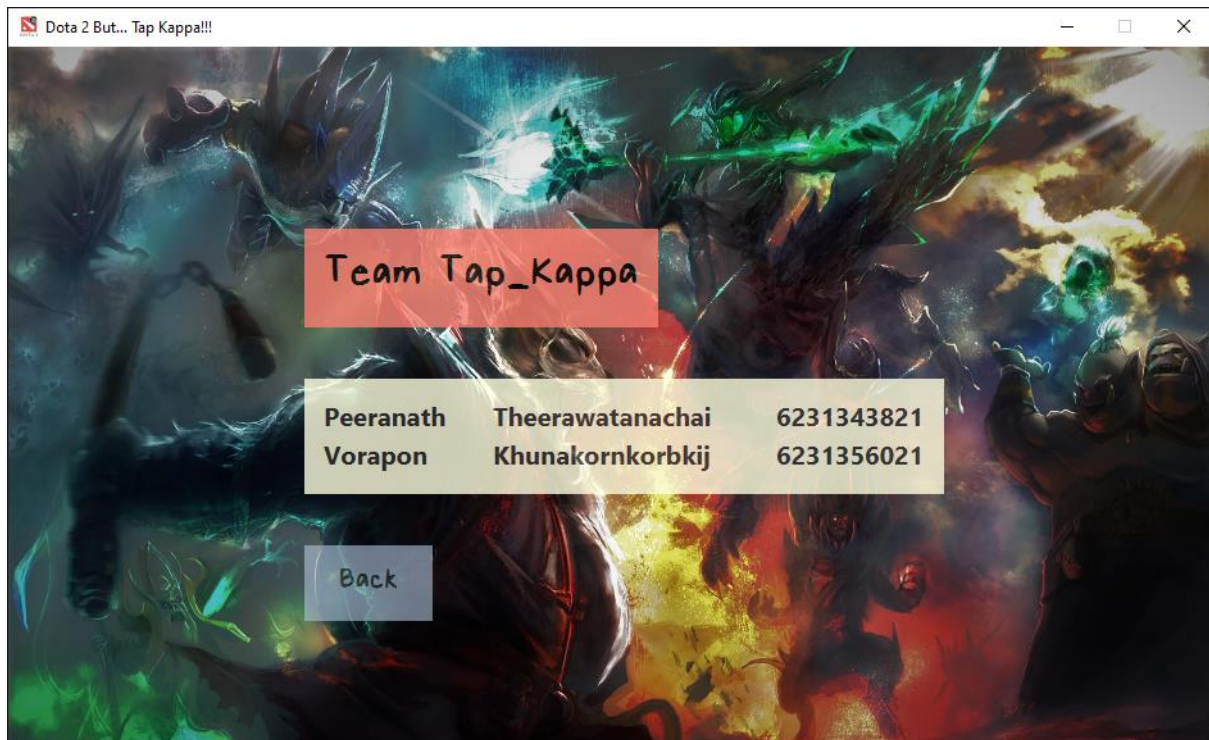
DOTA 2 But... Tap Kappa!!! is a relaxing game that will help you relieve stress from your daily tasks, with an easy gameplay that will let you wildly spamming your mouse click to help you release the power within inside. This game was inspired by the notorious mobile game called Tap Titan, an idle clicker RPG game which you are a sword master that fight non-stop monsters with your sword as you progress your journey through the land in this clicker RPG adventure.

How to Play

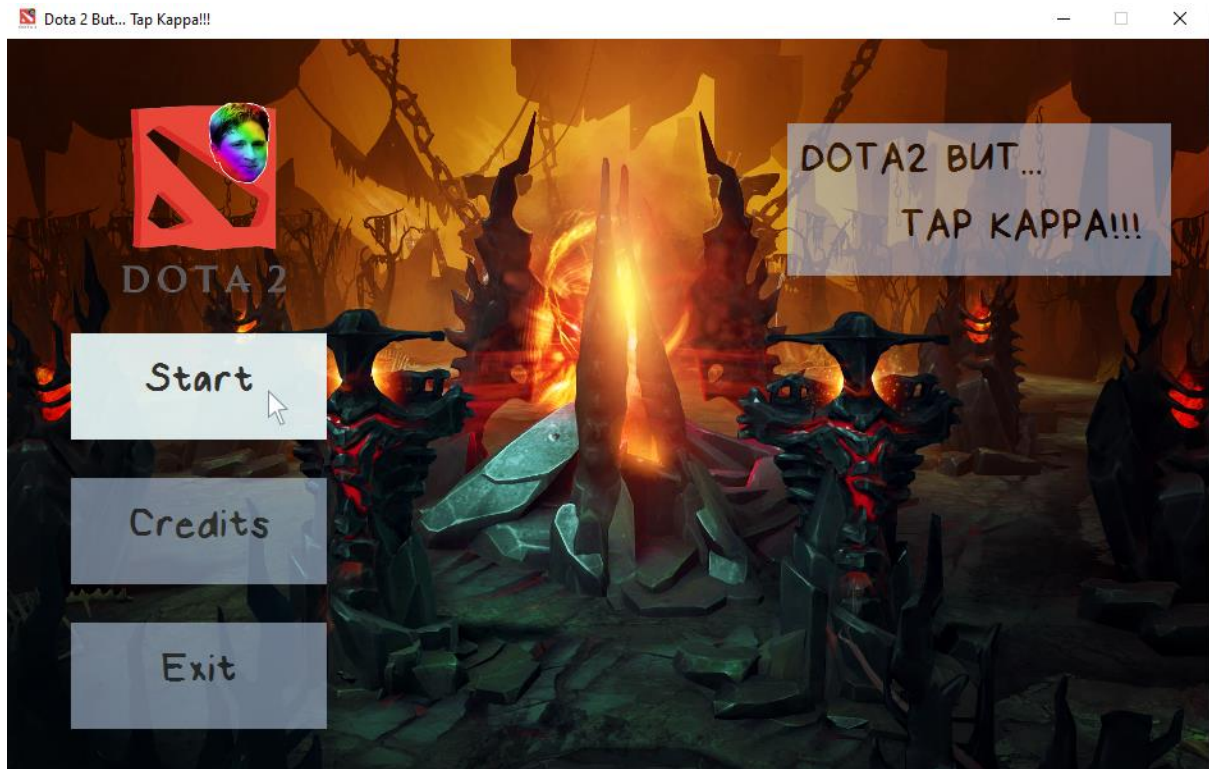
1. After you open the game you will see the main menu scene



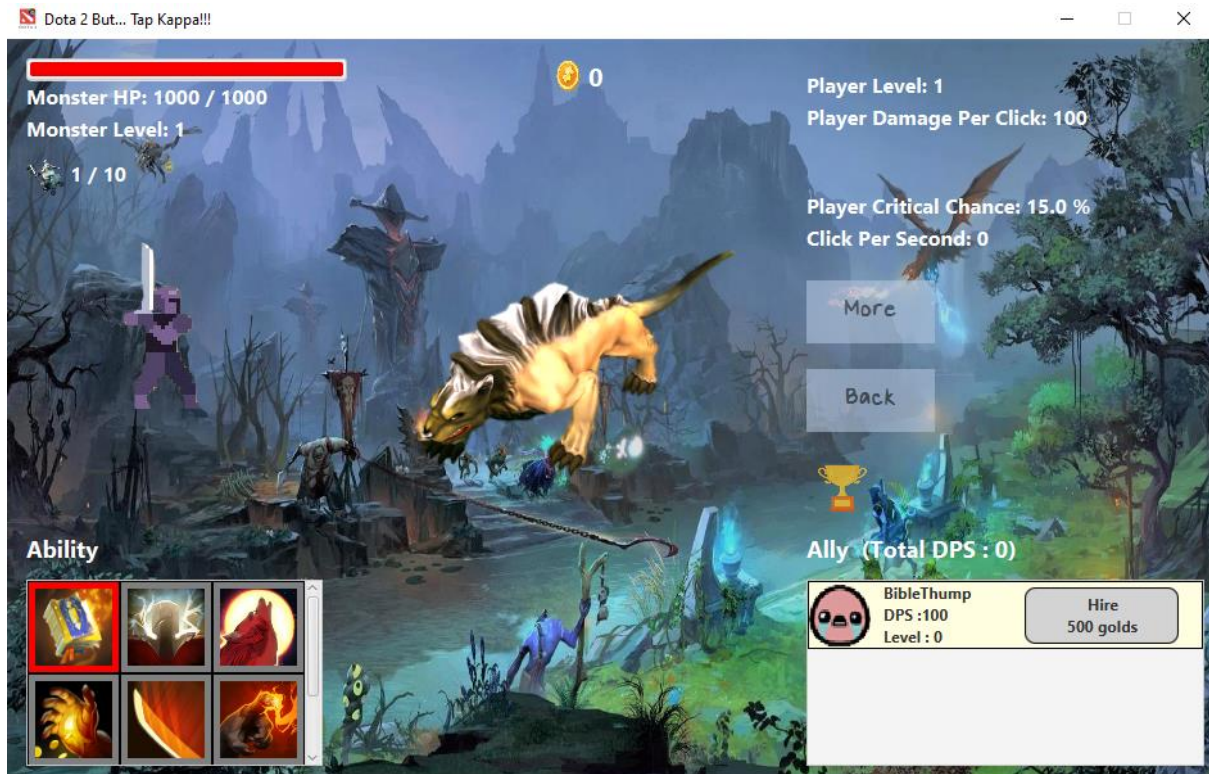
2. Actually, you can click at the 'Credits' button to go to this credit scene.



3. Anyways, let's jump right into the game.

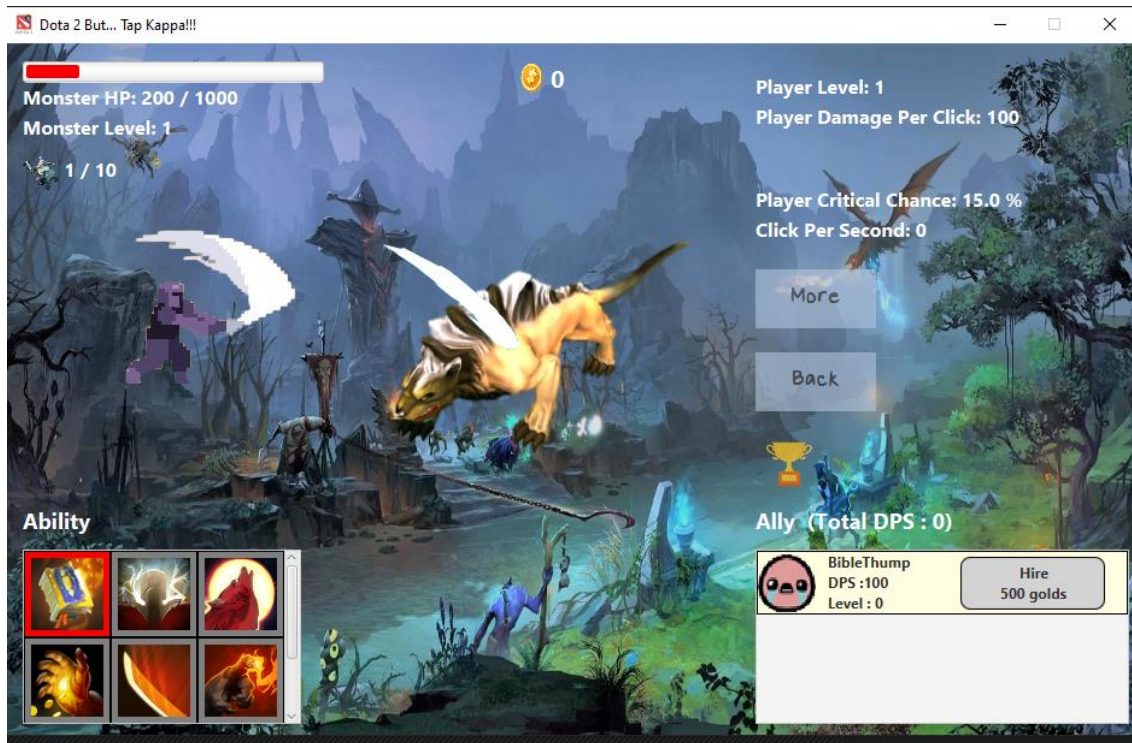


4. After you clicked the 'Start' button, you will see this scene.

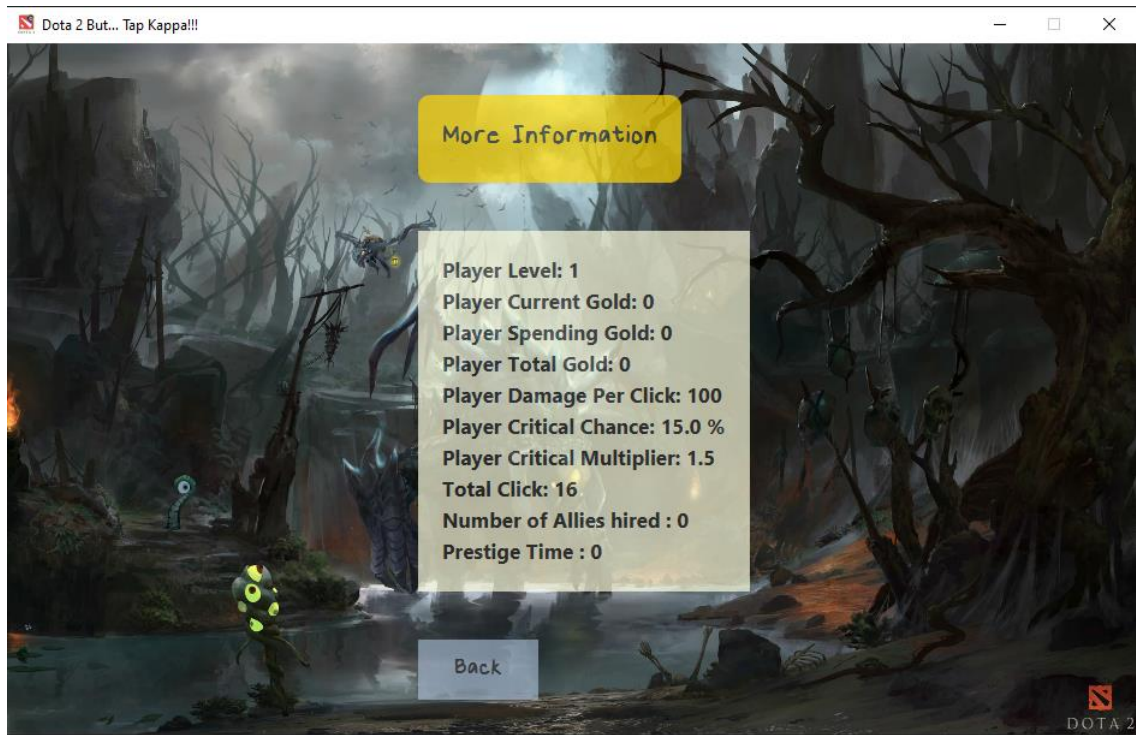


This is the main game scene, it consists of many components.

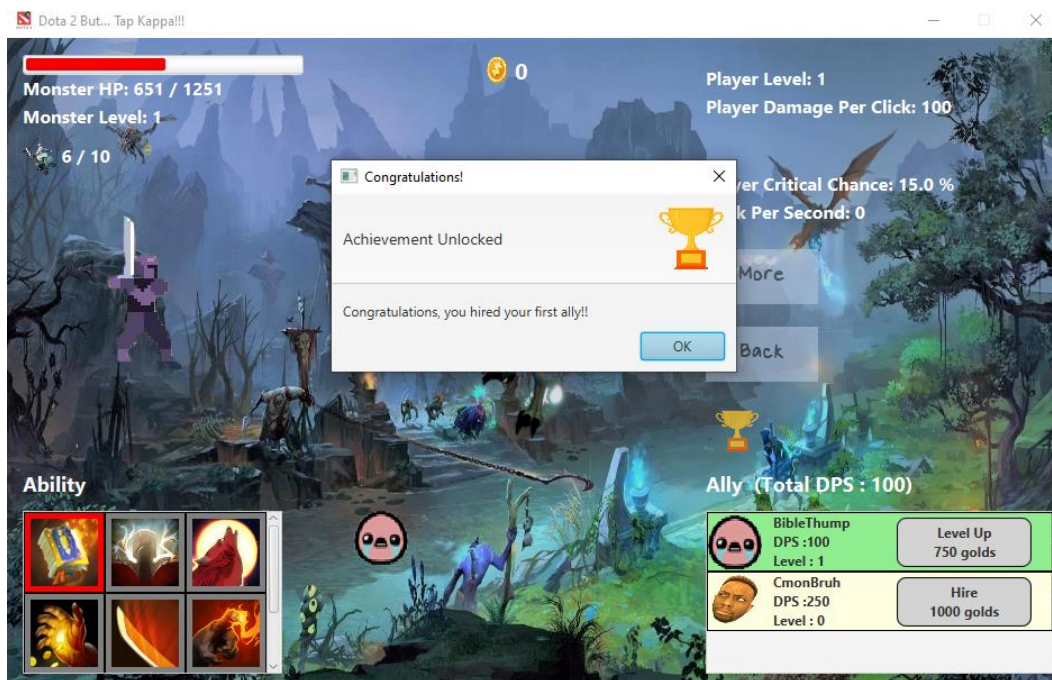
- current monster's information, current gold, and player stats are located at the top of the screen from left to right respectively.
- at the middle of the scene there is a monster you have to fight against.
- At the bottom left, there are various abilities you can use once you unlocked them.
- At the bottom right, you will see an ally you can hire to help you to deal damage to the monster.(PS. you will be able to unlock more allies along with your adventure.)



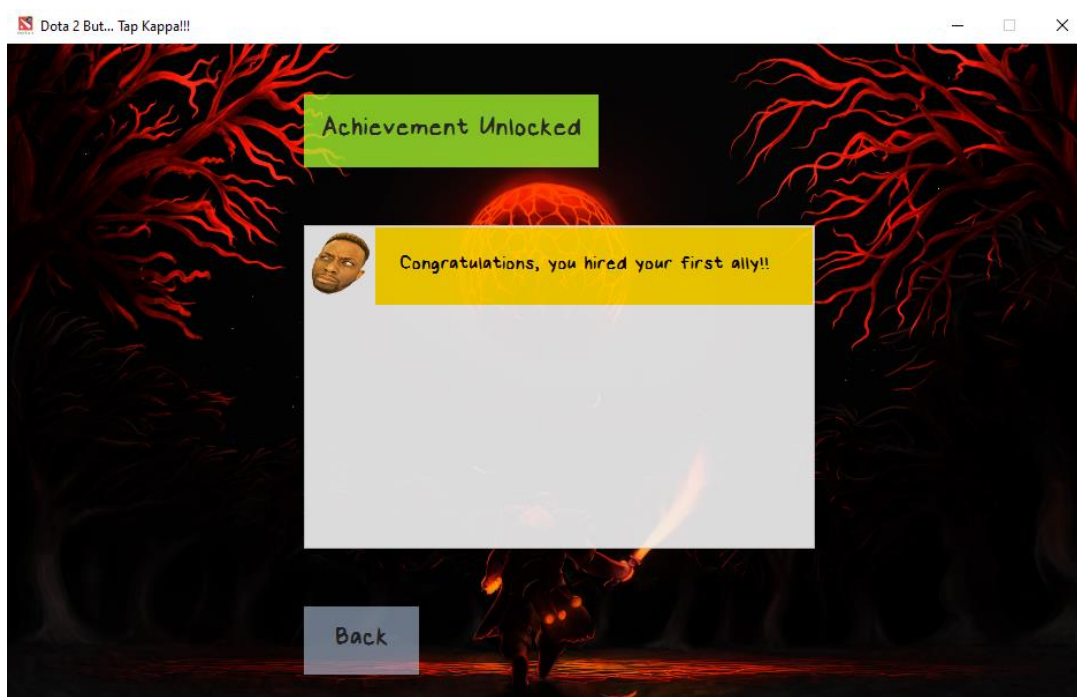
5. You can click on the monster to attack.
6. In case you want to see more detailed player's information you can click the 'More' button, it will lead you to this player information scene.



7. And there is an achievement system which you can unlock once you completed the achievement condition(s).

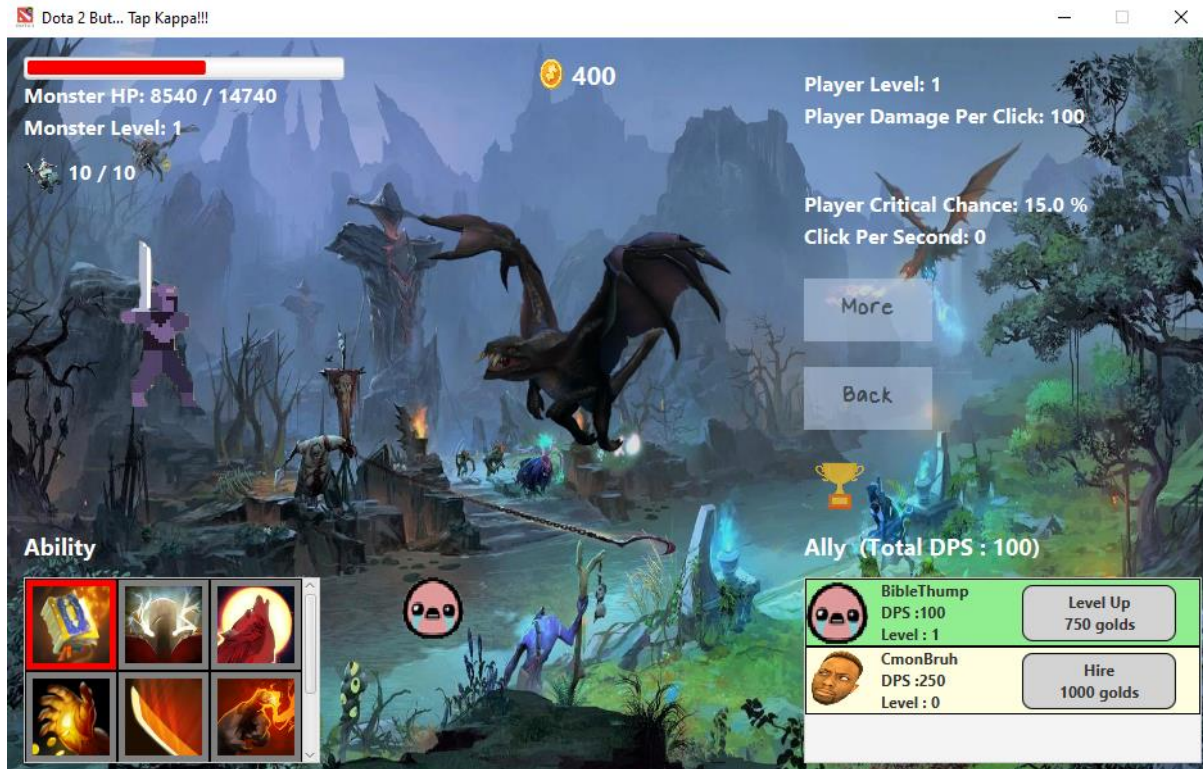


8. In the scene you can click at the trophy icon on the monster's right under the 'back' button. There will be an achievement scene which show you all the unlocked achievements.(Achievements unlock conditions are secret and will be revealed after you unlocked them.)



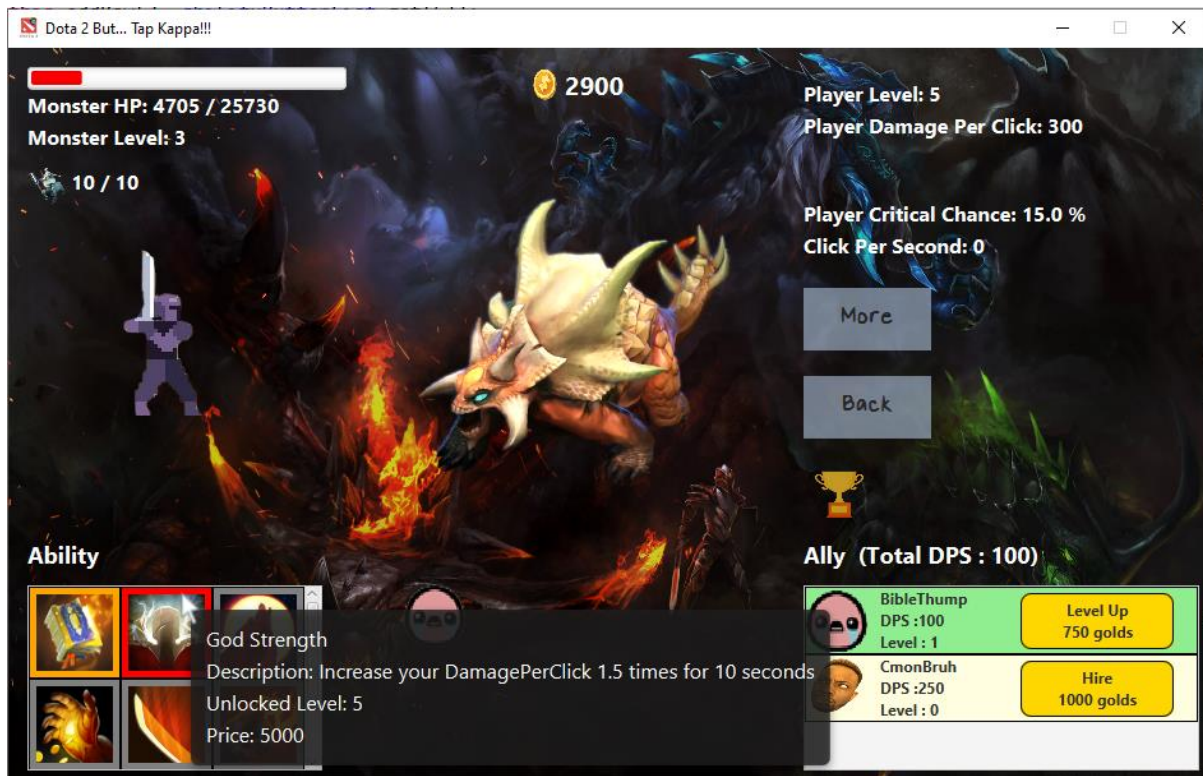
9. On every 10 monsters you killed, the boss monster will appear.

Boss monsters has a huge amount of HP, killing it you will move to the next stage.



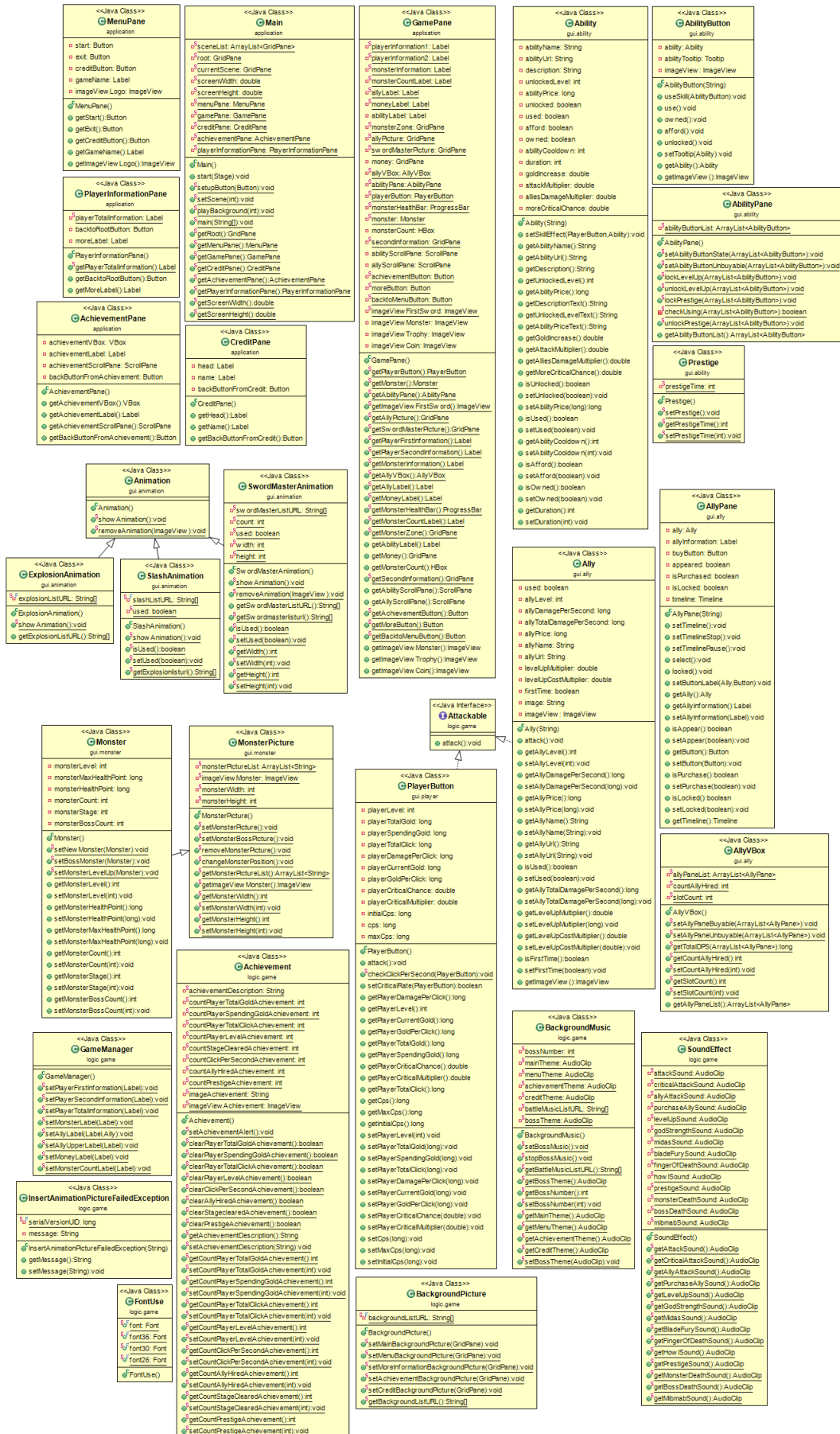
10. About abilities, you can hover your mouse over the icon to see that skill's information. About the color of the skill icon.

- grey - you haven't met the required level of the skill.
- red - you don't have enough money, or the skill is on cooldown.
- orange - you have enough money to buy this skill.
- yellow - the skill is ready to use.
- green - the skill is in use.



Now, go slash some enemies and enjoy!!!

Class Diagram



Sign

+ : Public

- : Private

: Protected

1. Package gui.ability

1.1 Class Ability

1.1.1 Fields

Name	Description
- String abilityName;	Name of each ability
- String abilityUrl;	URL of each ability
- String description;	Description of each ability
- int unlockedLevel;	Unlocked level of each ability (Ability will unlock when player has more than or equal level to ability unlocked level)
- long abilityPrice;	Price of each ability
- boolean unlocked;	Set as true when ability is unlocked
- boolean used;	Set as true when ability is being used
- boolean afford;	Set as true when you can buy that ability (Player current gold more than or equal to ability price)
- boolean owned	Set as true when you already buy that ability
- int abilityCooldown	Cooldown of each ability
- int duration;	Duration of each ability
- double goldIncrease	Gold that will be increased when using "Hand of Midas" ability
- double attackMultiplier	Player damage that will be multiplied when using "God Strength" ability (notify as 2 decimal number)
- double alliesDamageMultiplier	Ally damage that will be multiplied when using "Howl" ability (notify as 2 decimal number)

- double moreCriticalChance	Critical chance that will be increased when using “Critical Strike” ability (notify as 2 decimal number)
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1.1.2 Constructor

Name	Description
+ Ability(String abilityName)	<p>Initialize field according to abilityName</p> <ul style="list-style-type: none"> - abilityName = abilityName - goldIncrease = 100 - attackMultiplier = 0.5 - alliesDamageMultiplier = 0.5 - moreCriticalChance = 0.25 - used = false - afford = false <p>switch (abilityName)</p> <ul style="list-style-type: none"> - Initialize abilityURL, description, unlockedLevel, abilityPrice, owned, unlocked, abilityCooldown, and duration depend on abilityName

1.1.3 Methods

Name	Description
+ void setSkillEffect(Ability ability) throws InsertAnimationPictureFailedException	Set skill effects for each ability when they are being used depend on ability
+ getter/setter for each field	Generate getter/setter for each field

1.2 Class AbilityButton extends Button

1.2.1 Fields

Name	Description
- Ability	Ability to make abilityButton

- Tooltip abilityTooltip	Tooltip for ability
- ImageView imageView	ability button image

1.2.2 Constructor

Name	Description
+ AbilityButton (String abilityName)	Initialize Ability Button <ul style="list-style-type: none"> - Set Padding new Insets(15) - ability = new Ability(abilityName) - SetBackground as GRAY color - SetBorder as BLACK color - Set Graphic from imageView - Set Tooltip for ability

1.2.3 Methods

Name	Description
+ void useSkill(AbilityButton abilityButton) throws InsertAnimationPictureFailedException	Set how each ability can be used <ul style="list-style-type: none"> - Finger of Death : Set sound, set duration using Thread, set monster health, set cooldown, set ability color - Howl : Set sound, set oldDPS, set new DPS, set duration using Thread, set cooldown, set ability color - Prestige : Set sound, set Prestige from Class Prestige, set alertBox to confirm, set ability color - Other : Set sound, set old value, set new value, set duration using Thread, set cooldown, set ability color
+ void use()	Set background of ability button as GREEN
+ void owned()	Set background of ability button as YELLOW
+ void afford()	Set background of ability button as ORANGE
+ void unlocked()	Set background of ability button as RED
+ void setTooltip(Ability ability)	Set Tooltip of each ability

+ Ability getAbility()	Return the ability
+ ImageView getImageView()	Return ability image view

1.3 Class AbilityPane extends Gridpane

1.3.1 Fields

Name	Description
- static ArrayList<AbilityButton> abilityButtonList	List for keeping every ability button

1.3.2 Constructor

Name	Description
+ AbilityPane()	<ul style="list-style-type: none"> - add abilityButton to abilityPane - Set On Action for every abilityButton, Update abilityButton, Update moneyLabel, Upate allyLabel, set tooltip for abilityButton, Set Player Gold, Set playerInformation

1.3.3 Methods

Name	Description
+ static void setAbilityButtonState(ArrayList<AbilityButton> abilityButtonList)	<p>Set each abilityButton what background color should be inserted</p> <ul style="list-style-type: none"> - GREY : locked - RED : unlocked but do not have enough gold - ORANGE : unlocked and have enough gold to buy - YELLOW : already own that abilitiy (Do not have to pay again) - GREEN : ability is being used

+ static void setAbilityButtonUnbuyable(ArrayList<AbilityButton> abilityButtonList)	Set Background to red when player do not have enough gold to buy that ability
+ static void lockLevelUp(ArrayList<AbilityButton> abilityButtonList)	Lock ability Level Up (Use this method while skill God Strength is being used)
+ static void unlockLevelUp(ArrayList<AbilityButton> abilityButtonList)	Unlock ability Level Up (Use this method while skill God Strength is already used)
+ static void lockPrestige(ArrayList<AbilityButton> abilityButtonList)	Lock ability Prestige (Use this method while other abilities are being used)
+ static boolean checkUsing(ArrayList<AbilityButton> abilityButtonList)	Return true when ability which is not level up and prestige is being used
+ static void unlockPrestige(ArrayList<AbilityButton> abilityButtonList)	Unlock ability Prestige (Use this method while other abilities are already used)
+ static ArrayList<AbilityButton> getAbilityButtonList()	Get abilityButtonList

1.4 Class Prestige

1.4.1 Fields

Name	Description
- static int prestigeTime	Number of How many time you Prestige

1.4.2 Methods

Name	Description
+ static void setPrestige() throws InsertAnimationPictureFailedException	Set some field to its initial value after ability "Prestige" is being used <ul style="list-style-type: none"> - Set Player Button Damage per click, Gold per click, level, Cps, Current Gold

	<ul style="list-style-type: none"> - Set Allies slot count, Count ally hired, Ally Level, Ally DPS, Ally Price, how ally appear - Set Monster level, max health point, health point, monster count, monster boss count, set new monster, set monster picture - Set every Label (Player Information, Monster Label, Money Label) - Set AbilityPaneState, AbilityButtonUnbuyable, AllyPaneBuyable, AllyPaneBuyable
+ getter/setter for each field	Generate getter/setter for prestigeTime

2. Package gui.ally

2.1 Class Ally implements Attackable

2.1.1 Fields

Name	Description
- boolean used	Set as true when player already hired that ally
- int allyLevel	Represent ally level
- long allyDamagePerSecond	Represent ally DPS
- long allyTotalDamagePerSecond	Represent ally total DPS
- long allyPrice	Represent ally price
- String allyName	Represent ally name
- String allyUrl	Represent ally URL
- double levelUpMultiplier	Damage that multiply when ally level up
- double levelUpCostMultiplier	Cost that multiply when ally level up
- boolean firstTime = true	Use for showing ally picture below the monster
- String image	Represent ally image URL
- ImageView imageView	Represent ally ImageView

2.1.2 Constructor

Name	Description
+ Ally(String allyName)	<p>Initialize some fields</p> <ul style="list-style-type: none">- allyName = allyName- used = false- allyLevel = 0- levelUpMultiplier = 1.2- levelUpCostMultiplier = 1.5 <p>Initialize more ally fields depend on ally name</p> <ul style="list-style-type: none">- allyURL, allyPrice, allyDPS

2.1.3 Methods

Name	Description
+ void attack() throws InsertAnimationPictureFailedException	<p>Method that ally attacks monster 1 time (will be used in Class AllyPane)</p> <ul style="list-style-type: none">- Set monster health point, health bar, set new monster- Set ally attack sound, set ally information, set imageView under monster if firstTime = true, set ally picture opacity using Thread- Set Label (player, monster, ally)
+ getter/setter for each field	Generate getter/setter for each field

2.2 Class AllyPane extends GridPane

2.2.1 Fields

Name	Description
- Ally ally	Represent ally
- Label allyInformation	Represent ally information (name, level, DPS)
- Button buyButton	Represent Button for buy an ally

- boolean appeared	Set as true when allyPane already appeared in AllyVBox
- boolean isPurchased	Set as true when you have enough money to buy ally
- boolean isLocked	Set as true when you locked that ally (cannot hired and level up)
- Timeline timeline	Represent timeline

2.2.2 Constructor

Name	Description
+ AllyPane(String allyName)	Initialize the field in AllyPane <ul style="list-style-type: none"> - ally = new Ally(allyName) - buyButton = new Button() - Set buyButton background as Color LIGHTGRAY - Set buyButton border as Color BLACK - Set background as Color LIGHTYELLOW - Set border as Color BLACK - set Button Label (Use method setButtonLabel())

2.2.3 Methods

Name	Description
+ void setTimeline()	Set timeline for ally to attack() every second INDEFINITE time
+ void setTimelineStop()	Set timeline to stop
+ void setTimelinePause()	Set timeline to pause
+ void select()	Set Background as Color LIGHTGREEN
+ void locked()	Set Background as Color LIGHTGRAY
+ void setButtonLabel(Ally ally, Button button)	Set label on the button according to ally level and price

+ getter/setter for each field	Generate getter/setter for each field
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2.3 Class AllyVBox extends VBox

2.3.1 Fields

Name	Description
- static ArrayList<AllyPane> allyPaneList	List that contains all Ally Pane
- static int countAllyHired	Number of ally that player hired
- static int slotCount	Number of slot for Ally Picture under monster picture

2.3.2 Constructor

Name	Description
+ AllyVBox()	<ul style="list-style-type: none"> - Add every AllyPane into allPaneList - Set on mouse clicked for each allyPane if that ally pane is not locked <ol style="list-style-type: none"> 1. if player can buy : Press to buy, Set label, set player gold, set ally level, ally price, set timeline to start, set ability pane unbuyable, set ally VBox unbuyable , set purchase sound 2. if player already hired ally and can level up : Press to level up, Set label, set player gold, set ally level, ally price, set ability pane unbuyable, set ally VBox unbuyable, set purchase sound

2.3.3 Methods

Name	Description
+ static void setAllyPaneBuyable(ArrayList<AllyPane> allyPaneList)	Set Background as Color GOLD when player have enough gold to hire or level up ally and that ally is not locked

+ static void setAllyPaneUnbuyable(ArrayList<AllyPane> allyPaneList)	Set Background as Color LIGHTGRAY when player do not have enough gold to hire or level up ally
+ static long getTotalDPS(ArrayList<AllyPane> allyPaneList)	Return total DPS that player have (count from ally DPS that is bought)
+ getter/setter for each field	Generate getter/setter for each field

3. Package gui.animation

3.1 Class Animation

3.1.1 Method

Name	Description
+ static void showAnimation() throws InsertAnimationPictureFailedException	This method does nothing
+ static void removeAnimation(ImageView i) throws InsertAnimationPictureFailedException	Remove ImageView from Game Pane

3.2 Class ExplosionAnimation extends Animation

3.2.1 Fields

Name	Description
- static final String[] explosionListURL	List contains all URL of explosion animation

3.2.2 Methods

Name	Description
+ static void showAnimation() throws InsertAnimationPictureFailedException	Show explosion animation using thread when monster health is below 0
+ String[] getExplosionListURL()	Get explosionListURL

3.3 Class SlashAnimation extends Animation

3.3.1 Fields

Name	Description
- static final String[] slashListURL	List contains all URL of slash animation
- static boolean used	Return true if that animation is running

3.3.2 Constructor

Name	Description
+ SlashAnimation()	Initialize used = false

3.3.3 Methods

Name	Description
+ static void showAnimation() throws InsertAnimationPictureFailedException	Show slash animation using thread when used = false (This method will be used in PlayerButton attack())
+ getter/setter for each field	Get slashListURL

3.4 Class SwordMasterAnimation extends Animation

3.4.1 Fields

Name	Description
- static String[] swordMasterListURL	List contains all URL of sword master animation
- static int count	Represent number of animation frame
- static boolean used	Return true if that animation is running
- static int width	Represent sword master width
- static int height	Represent sword master height

3.4.2 Constructor

Name	Description
+ SwordMasterAnimation()	Initialize fields <ul style="list-style-type: none"> - count = 0 - used = false - width = 150

	- height = 150
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3.4.3 Methods

Name	Description
+ static void showAnimation() throws InsertAnimationPictureFailedException	Show sword master animation using thread when used = false (This method will be used in PlayerButton attack())
+ static void removeAnimation(ImageView i)	Remove sword master picture in GamePane
+ getter/setter for each field	Generate getter/setter for each field

4. Package gui.monster

4.1 Class Monster extends MonsterPicture

4.1.1 Fields

Name	Description
- int monsterLevel	Represent monster level
- long monsterMaxHealthPoint	Represent monster max health point
- long monsterHealthPoint	Represent monster current health point
- int monsterCount	Represent monster count
- int monsterStage	Represent monster stage (Use for checking boss monster)
- int monsterBossCount	Represent boss monster count

4.1.2 Constructor

Name	Description
+ Monster()	Initialize fields <ul style="list-style-type: none"> - monsterLevel = 1 - monsterMaxHealthPoint = 1000 - monsterHealthPoint = monsterMaxHealthPoint - monsterCount = 1 - monsterBossCount = 0 - monsterStage = 1

4.1.3 Methods

Name	Description
+ static void setNewMonster(Monster monster) throws InsertAnimationPictureFailedException	Set sound, set explosion animation, set new max health point, set new health point, set player gold when monster count is 1-9
+ static void setBossMonster(Monster monster) throws InsertAnimationPictureFailedException	<ul style="list-style-type: none">- Set boss monster picture, set boss music when monster count = 10- if boss monster health point is below 0, Set sound, set boss count, set monster count, set new health point, new health bar, set player gold
+ static void setMonsterLevelUp(Monster monster)	Increase monster level by 1
+ getter/setter for each field	Generate getter/setter for each field

4.2 Class MonsterPicture

4.2.1 Fields

Name	Description
- static ArrayList<String> monsterPictureList	List contains all monster picture URL including boss monster picture URL
- static ImageView imageViewMonster	Represent monster image
- static int monsterWidth	Represent monster width
- static int monsterHeight	Represent monster height

4.2.2 Constructor

Name	Description
+ MonsterPicture()	Add all monster image URL to monsterPictureList

4.2.3 Method

Name	Description
+ static void setMonsterPicture()	Set PlayerButton graphic as a picture that random all monster image (1-28)
+ static void setMonsterBossPicture()	Set PlayerButton graphic as a picture that random all boss monster image (29-37)
+ static void removeMonsterPicture()	Remove monster picture from Game Pane
+ static void changeMonsterPosition()	Change monster position using Thread (This method is used in PlayerButton attack())
+ getter/setter for each field	Generate getter/setter for each field

5. Package gui.player

5.1 Class PlayerButton extends Button implements Attackable

5.1.1 Fields

Name	Description
- int playerLevel	Represent player level
- long playerTotalGold	Represent player total gold
- long playerSpendingGold	Represent player spending gold
- long playerTotalClick	Represent player total click
- long playerDamagePerClick	Represent player damage per click
- long playerCurrentGold	Represent player current gold
- long playerGoldPerClick	Represent player gold per click
- double playerCriticalChance	Represent player critical chance
- double playerCriticalMultiplier	Represent player attack multiplier when critical
- long initialCps	Represent player initial click per second
- long cps	Represent player current click per second
- long maxCps	Represent player max click per second

5.1.2 Constructor

Name	Description
+ PlayerButton()	<ul style="list-style-type: none"> - Initialize fields - playerDamagePerClick = 100 - playerGoldPerClick = 0

	<ul style="list-style-type: none"> - playerCriticalChance = 0.15 - playerCriticalMultiplier = 1.5 - playerLevel = 1 - playerCurrentGold = 0 - playerSpendingGold = 0 - playerTotalGold = playerCurrentGold - playerTotalClick = 0 - maxCps = 0 - Set on action to attack() , set label - Set on key released (Z, X) to use attack() , set label
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5.1.3 Methods

Name	Description
+ void attack() throws InsertAnimationPictureFailedException	<ul style="list-style-type: none"> - Set critical rate using setCriticalRate() - Set attack Sound - Set monster health point , health bar, set new monster - Set monster change position - Show sword master animation - Show slash animation - Set
+ static void checkClickPerSecond(PlayerButton playerButton)	Check how much click player can do in 1 seconds
+ boolean setCriticalRate(PlayerButton playerButton)	Return true if player get critical hit
+ getter/setter for each field	Generate getter/setter for each field

6. Package logic.game

6.1 Class Achievement

6.1.1 Fields

Name	Description
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- static String achievementDescription	Represent achievement description
- static int countPlayerTotalGoldAchievement	Represent count for total gold achievement
- static int countPlayerSpendingGoldAchievement	Represent count for spending gold achievement
- static int countPlayerTotalClickAchievement	Represent count for total click achievement
- static int countPlayerLevelAchievement	Represent count for player level achievement
- static int countStageClearedAchievement	Represent count for stage clear achievement
- static int countClickPerSecondAchievement	Represent count for click per second achievement
- static int countAllyHiredAchievement	Represent count for ally hired achievement
- static int countPrestigeAchievement	Represent count for prestige achievement
- static String imageAchievement	Represent achievement picture URL
- static ImageView imageViewAchievement	Represent achievement picture

6.1.2 Constructor

Name	Description
+ Achievement()	Initialize fields <ul style="list-style-type: none"> - countPlayerTotalGoldAchievement = 0 - countPlayerSpendingGoldAchievement = 0 - countPlayerTotalClickAchievement = 0 - countPlayerLevelAchievement = 0 - countStageClearedAchievement = 0 - countClickPerSecondAchievement = 0 - countAllyHiredAchievement = 0 - countPrestigeAchievement = 0

6.1.3 Methods

Name	Description
+ static void setAchievementAlert()	Set Alert Box to be shown and add VBox to Achievement Pane when achievement completed

+ static boolean clearPlayerTotalGoldAchievement()	Return true when Player Total Gold Achievement is completed
+ static boolean clearPlayerSpendingGoldAchievement()	Return true when Player Spending Gold Achievement is completed
+ static boolean clearPlayerTotalClickAchievement()	Return true when Player Total Click Achievement is completed
+ static boolean clearPlayerLevelAchievement()	Return true when Player Level Achievement is completed
+ static boolean clearClickPerSecondAchievement()	Return true when Player Click per second Achievement is completed
+ static boolean clearAllyHiredAchievement()	Return true when Ally hired Achievement is completed
+ static boolean clearStageclearedAchievement()	Return true when Stage cleared Achievement is completed
+ static boolean clearPrestigeAchievement()	Return true when Prestige Achievement is completed
+ getter/setter for each field	Generate getter/setter for each field

6.2 Interface Attackable

6.2.1 Methods

Name	Description
+ abstract void attack() throws InsertAnimationPictureFailedException	This method does nothing

6.3 Class BackgroundMusic

6.3.1 Fields

Name	Description
- static int bossNumber	Represent count boss number to cycle boss songs.
- static AudioClip mainTheme	Background music for main menu scene
- static AudioClip menuTheme	Background music for main menu scene
- static AudioClip achievementTheme	Background music for achievement scene
- static AudioClip creditTheme	Background music for credit scene

- static String[] battleMusicListURL	List of boss fight music URL
- static AudioClip bossTheme	Background music for boss fighting

6.3.2 Methods

Name	Description
+ static void setBossMusic()	Set the boss song when boss appeared
+ static void stopBossMusic()	Set back to normal battle background music
+ getter/setter for each field	Generate getter/setter for each field

6.4 Class BackgroundPicture

6.4.1 Fields

Name	Description
- static final String[] backgroundListURL	List of background pictures URL

6.4.2 Methods

Name	Description
+ static void setMainBackgroundPicture()	Set background picture for battle
+ static void setMenuBackgroundPicture()	Set background for main menu scene
+ static void setMoreInformationBackgroundPicture()	Set background for more information scene
+ static void setAchievementBackgroundPicture()	Set background for achievement scene
+ static void setCreditBackgroundPicture()	Set background for credit scene
+ static String[] getBackgroundListURL()	Get backgroundListURL

6.5 Class GameManager

6.5.1 Methods

Name	Description
+ static void setPlayerFirstInformation(Label playerInformation)	Set the initial player stats text for <ul style="list-style-type: none"> - Player Level - Player Damage Per Click

+ static void setPlayerSecondInformation(Label playerInformation)	Set the initial player stats text for <ul style="list-style-type: none"> - Player Critical Chance - Click Per Second
+ static void setPlayerTotalInformation(Label playerInformation)	Set all player stats text in player information scene including <ul style="list-style-type: none"> - Player level - Player Current Gold - Player Spending Gold - Player Total Gold - Player Damage Per Click - Player Critical Chance - Player Critical Multiplier - Total Click - Prestige Time
+ static void setMonsterLabel(Label monsterInformation)	Set text for <ul style="list-style-type: none"> - Monster HP - Monster Level
+ static void setAllyLabel(Label allyInformation, Ally ally)	Set text for each ally's DPS
+ static void setAllyUpperLabel(Label ally)	Set text for total ally DPS
+ static void setMoneyLabel(Label money)	Set text for current money
+ static void setMonsterCountLabel(Label monsterCount)	Set text for current monster count in current level

6.6 Class InsertAnimationPictureFailedException extends Exception

6.6.1 Fields

Name	Description
- static final long serialVersionUID	Represent serial ID (always 1L)
- String message	Represent message

6.6.2 Constructor

Name	Description
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+ InsertAnimationPictureFailedException(String message)	Throws message when insert animation picture failed
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6.6.3 Methods

Name	Description
+ String getMessage()	get Exception message
+ void setMessage(String message)	set Exception message

6.7 Class SoundEffect

6.7.1 Fields

Name	Description
- static AudioClip attackSound	Audio Clip when player attack
- static AudioClip criticalAttackSound	Audio Clip when player get critical chance
- static AudioClip allyAttackSound	Audio Clip when ally attacks
- static AudioClip purchaseAllySound	Audio Clip when ally is purchased
- static AudioClip levelUpSound	Audio Clip when level up ability is used
- static AudioClip godStrengthSound	Audio Clip when god strength ability is used
- static AudioClip midasSound	Audio Clip when hand of midas ability is used
- static AudioClip bladeFurySound	Audio Clip when blade fury ability is used
- static AudioClip fingerOfDeathSound	Audio Clip when finger of death ability is used
- static AudioClip howlSound	Audio Clip when howl ability is used
- static AudioClip prestigeSound	Audio Clip when prestige ability is used
- static AudioClip monsterDeathSound	Audio Clip when monster dead
- static AudioClip bossDeathSound	Audio Clip when boss monster dead
- static AudioClip mibmabSound	Audio Clip when you cannot use ability, hire or level up ally

6.7.2 Methods

Name	Description
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+ getter for each field	Generate getter for each field
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7. Package application

7.1 Class Main extends Application

7.1.1 Fields

Name	Description
- static ArrayList<GridPane> sceneList	Represent all scenes of the game
- static GridPane root	Represent the scene that will appear
- static GridPane currentScene	Represent the current scene of root
- static double screenWidth	Represent every screen width
- static double screenHeight	Represent every screen height
- static MenuPane menuPane	Represents Menu Pane
- static GamePane gamePane	Represents Game Pane
- static CreditPane creditPane	Represents Credit Pane
- static AchievementPane achievementPane	Represents Achievement Pane
- static PlayerInformationPane playerInformationPane	Represents Player Information Pane

7.1.2 Methods

Name	Description
+ void start(Stage primaryStage) throws InsertAnimationPictureFailedException {	Set sceneList and initialize Scene that contains root
+ static void main(String[] args)	Run Application
+ static void setScene(int index)	Set root at index to become visible, set current scene invisible, and set current scene as sceneList(index) and set playBackground(index)
+ static void playBackground(int index)	Display Background picture depend on the index
+ getter for each field	Generate getter for each field

7.2 AchievementPane extends GridPane

7.2.1 Fields

Name	Description
- VBox achievementVBox = new VBox()	VBox contains each achievement
- Label achievementLabel	Label for heading in Achievement Pane. Set text as "Achievement Unlocked"
- ScrollPane achievementScrollPane	ScrollPane for achievementVBox
- Button backButtonFromAchievement	Button for back to Game Pane. Set text as "Back"

7.2.2 Constructor

Name	Description
+ AchievementPane()	<ul style="list-style-type: none">- Initialize all fields- Set Pref size to match main width and height- Set Vertical Gap = 50- Set Alignment POS.CENTER

7.2.3 Method

Name	Description
+ getter for each field	Generate getter for each field

7.3 CreditPane extends GridPane

7.3.1 Fields

Name	Description
- Label head	Set text "Team Tap_Kappa"
- Label name	Set text as name of producer
- Button backButtonFromCredit	Set text "Back". Press to go to Menu Scene

7.3.2 Constructor

Name	Description
+ CreditPane()	<ul style="list-style-type: none"> - Initialize all fields - Set Pref size to match main width and height - Set Vertical Gap = 40 - Set Alignment POS.CENTER

7.3.3 Method

Name	Description
+ getter for each field	Generate getter for each field

7.4 GamePane extends GridPane

7.4.1 Fields

Name	Description
- static Label playerInformation1	Show player first information
- static Label playerInformation2	Show player second information
- static Label monsterInformation	Show monster information
- static Label monsterCountLabel	Show monster count
- static Label allyLabel	Set text "Ally" and show ally total DPS
- static Label moneyLabel	Show player current gold
- Label abilityLabel	Set text "Ability"
- static GridPane monsterZone	Contain monsterHealthBar, monsterInformation, and monsterCount
- static GridPane allyPicture	Represent the ally that player already bought
- static GridPane swordMasterPicture	Contain imageViewFirstSword and monster count
- GridPane money	Represent player current gold
- static AllyVBox allyVBox	Represent the allyVBox
- static AbilityPane abilityPane	Represent the abilityPane
- static PlayerButton playerButton	Represent PlayerButton
- static ProgressBar monsterHealthBar	Represent monster health bar
- static Monster monster	Represent the monster
- HBox monsterCount	Show monster count

- static GridPane secondInformation	Contain playerInformation2, moreButton, backtoMenuButton, and achievementButton
- ScrollPane abilityScrollPane	Scrollpane for abilityPane
- ScrollPane allyScrollPane	Scrollpane for allyVBox
- static Button achievementButton	Press to go to Achievement Scene
- static Button moreButton	Set text "More". Press to go to Player Information Scene
- static Button backtoMenuButton	Set text "Back". Press to go to Menu Scene
- static ImageView imageViewFirstSword	Picture of the swordmaster
- ImageView imageViewMonster	Picture of the monster
- ImageView imageViewTrophy	Picture of the trophy
- ImageView imageViewCoin	Picture of the coin

7.4.2 Constructor

Name	Description
+ GamePane()	<ul style="list-style-type: none"> - Initialize all fields - Set Pref size to match main width and height - Set Vertical Gap = 10 - Set Horizontal Gap = 40 - Set Padding new Insets(15)

7.4.3 Methods

Name	Description
+ getter for each field	Generate getter for each field

7.5 MenuPane extends GridPane

7.5.1 Fields

Name	Description
- Button start	Set text "Start". Press to go to Game Pane Scene.
- Button exit	Set text "Exit". Press to exit program .

- Button creditButton	Set text "Credit". Press to show producer.
- Label gameName	Show Game name

7.5.2 Constructor

Name	Description
+ MenuPane()	Initialize the fields <ul style="list-style-type: none"> - Set start, exit, creditButton, and gameName - Set Pref size to match main width and height - Set Vertical Gap = 45 - Set Horizontal Gap = 360 - Set Padding new Insets(50) - Set Alignment POS.CENTER

7.5.3 Methods

Name	Description
+ getter for each field	Generate getter for each field

7.6 PlayerInformationPane extends GridPane

7.6.1 Fields

Name	Description
- static Label playerTotalInformation	Show more information. Set text as "Back"
- Button backtoRootButton	Button that will return to Game Pane Scene when clicked.
- Label moreLabel	Label set text as "More Information"

7.6.2 Constructor

Name	Description
+ PlayerInformationPane()	Initialize the fields <ul style="list-style-type: none"> - Set Background

	<ul style="list-style-type: none"> - playerTotalInformation : set font, set Padding, set Opacity - backtoRootButton : setPrefSize(100,50), SetFont, set on action to call method Main.setScene(2) - more Label : setFont, set background color GOLD, set Opacity, set Padding - Set Pref size to match main width and height - Set Vertical Gap = 40 - Set Alignment POS.CENTER
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7.6.3 Methods

Name	Description
+ getter for each field	Generate getter for each field