

# **TMP 3413**

## **Software Engineering Lab**

### **SDS (Mario Game)**

**Group : Five Stars**

**Group Members:**

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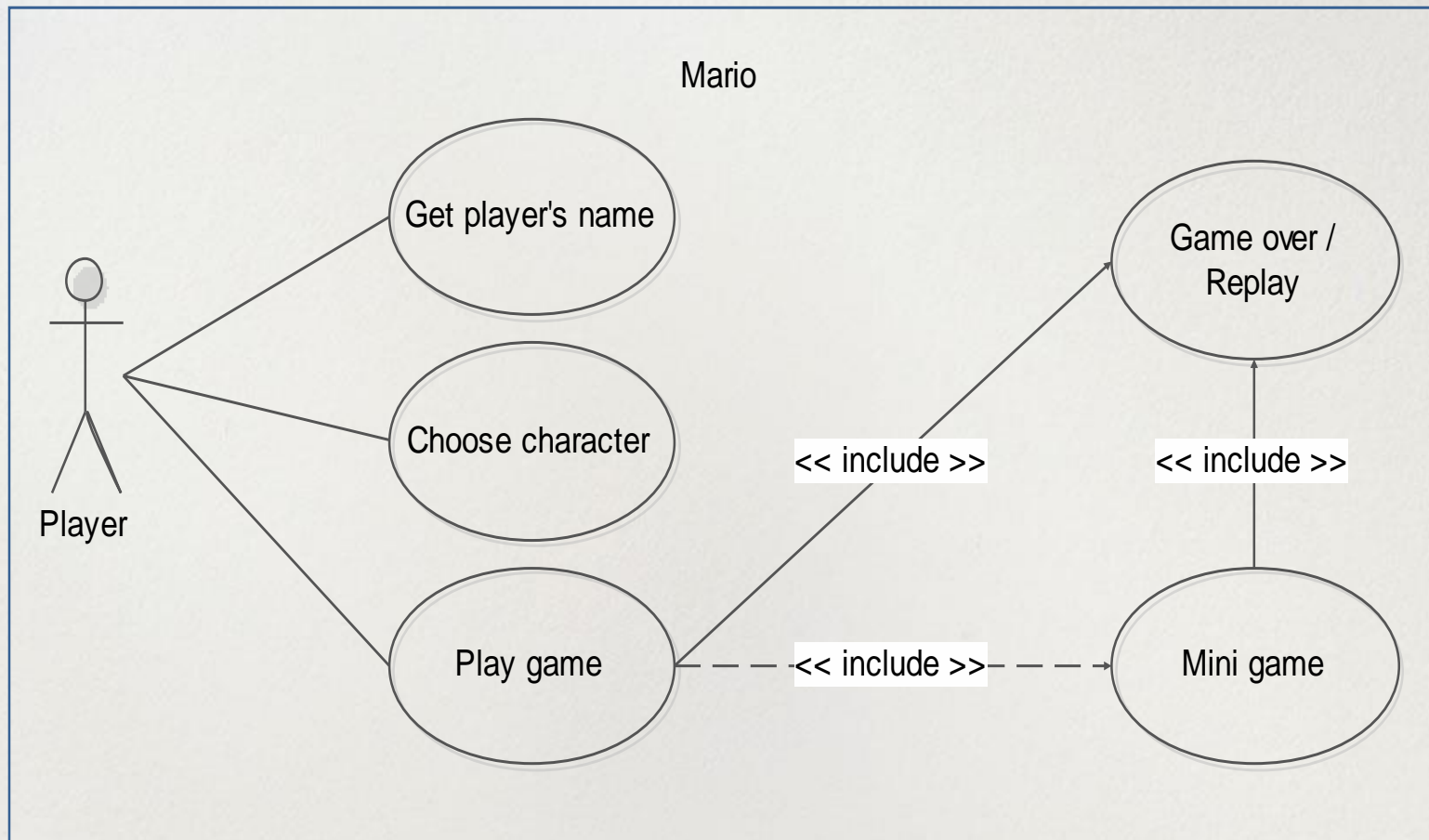
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Tan Sheu Yeu (39049)

Vernon Chien (39233)

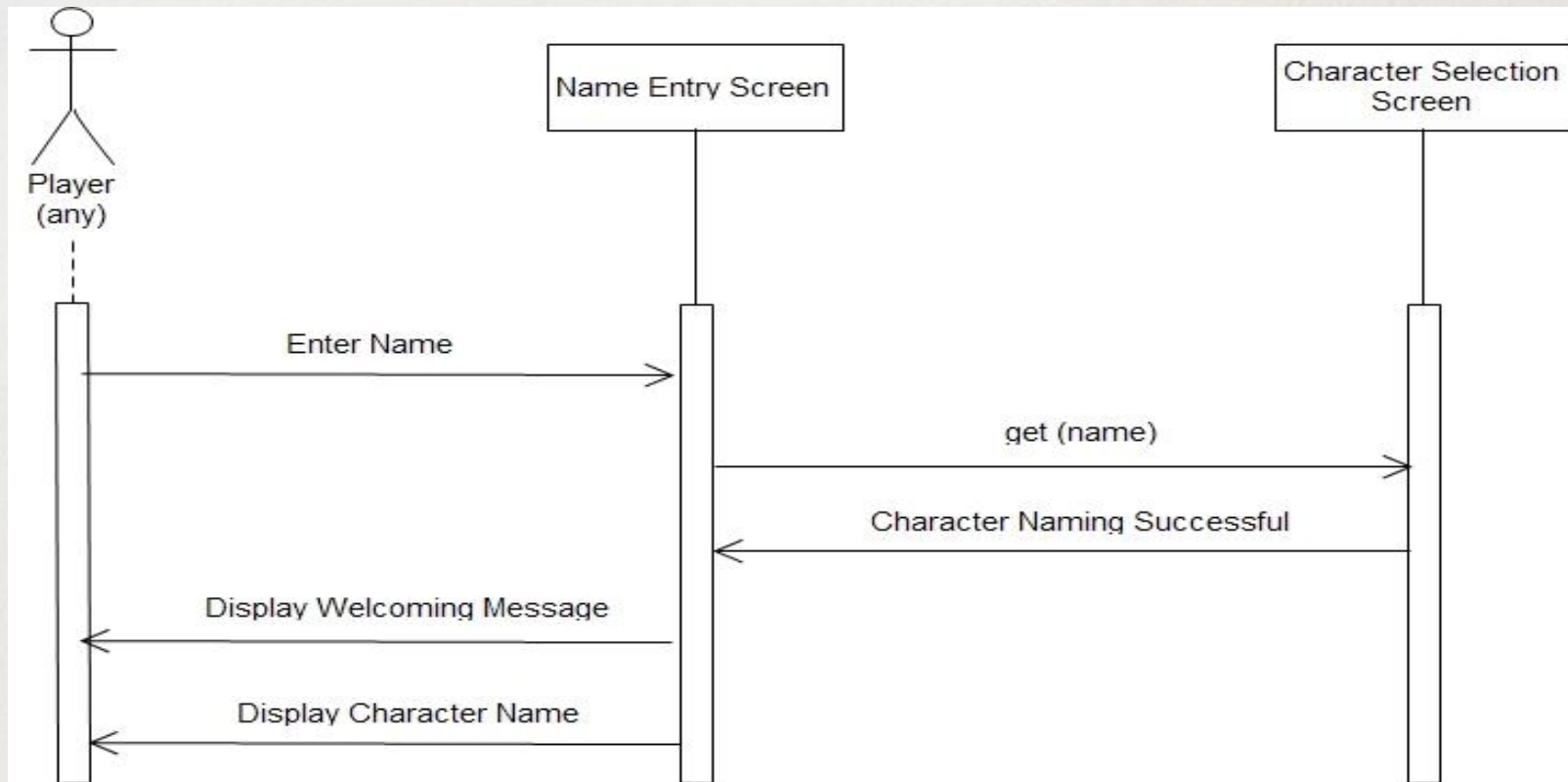


# Use Case Diagram



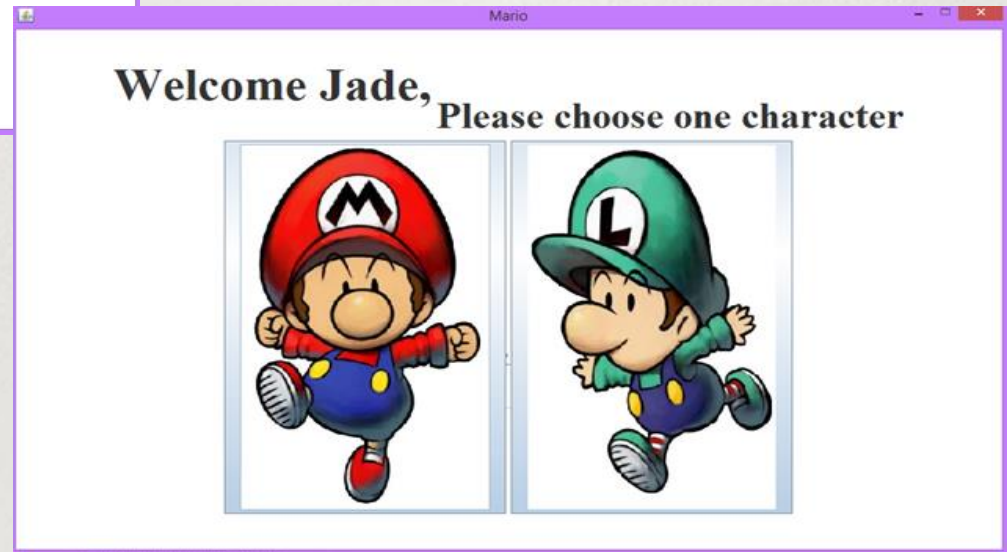
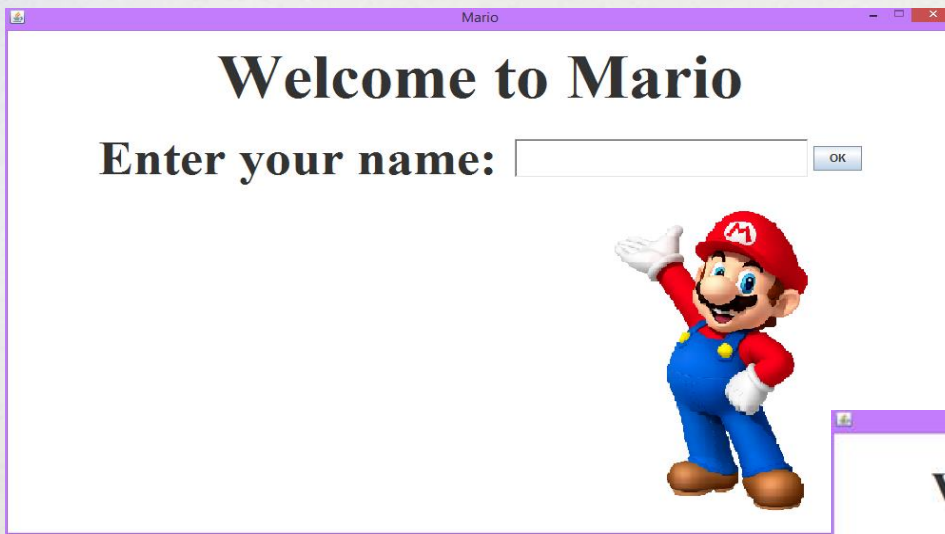
# Sequence Diagram

## 1. Naming Character



# Sequence Diagram (Cont')

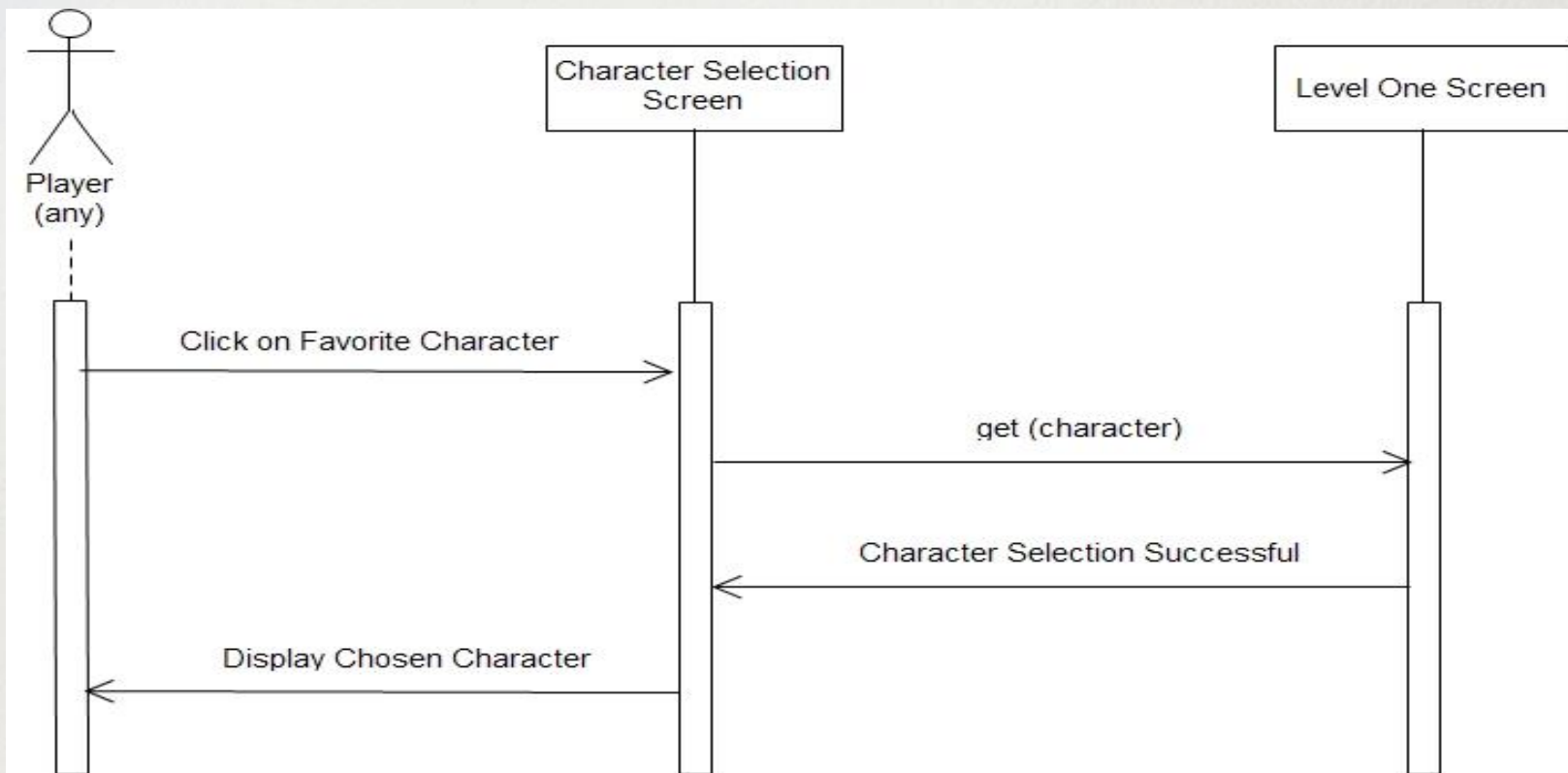
## 1. Naming Character





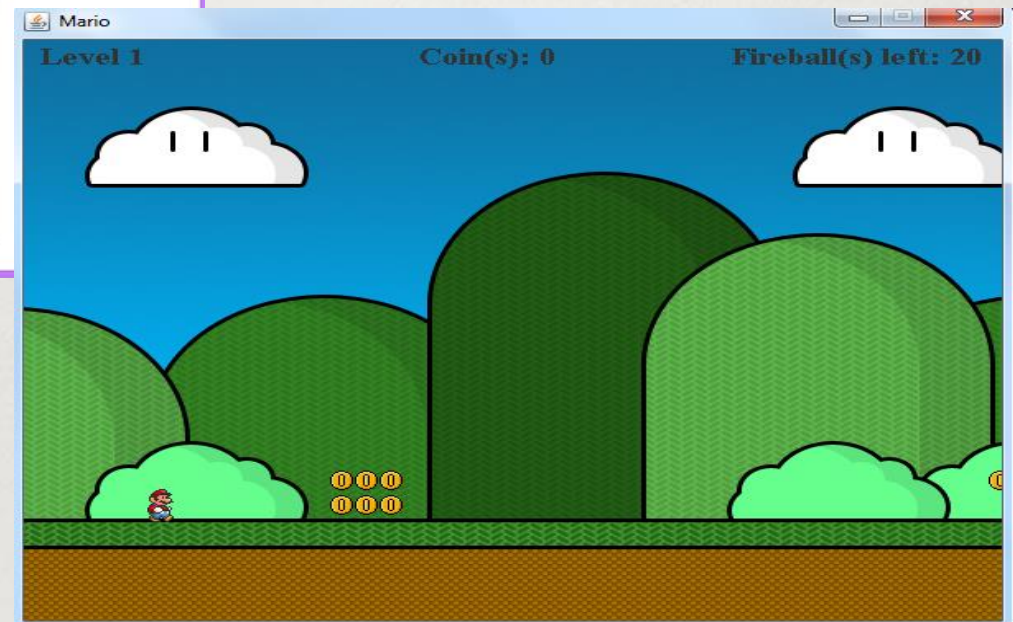
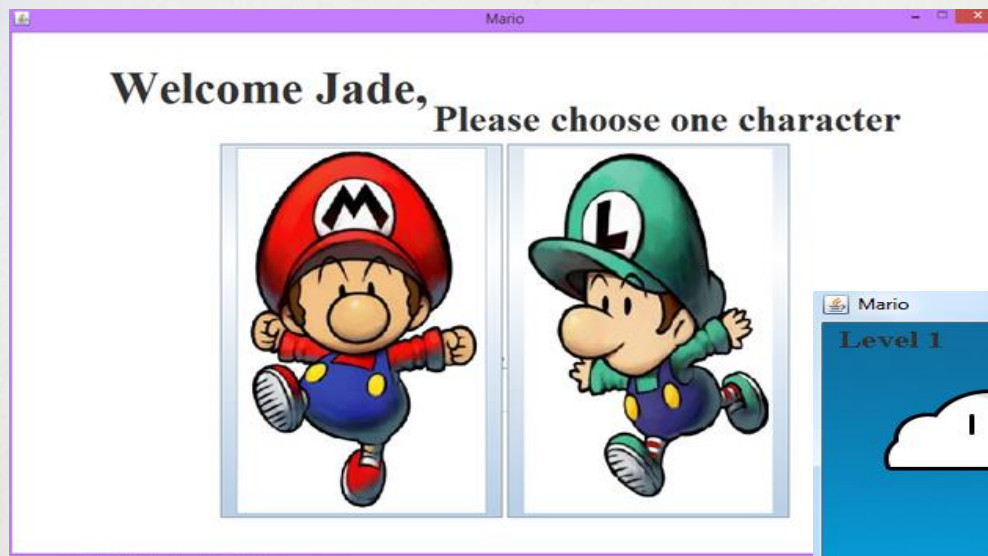
# Sequence Diagram (Cont')

## 2. Character Selection



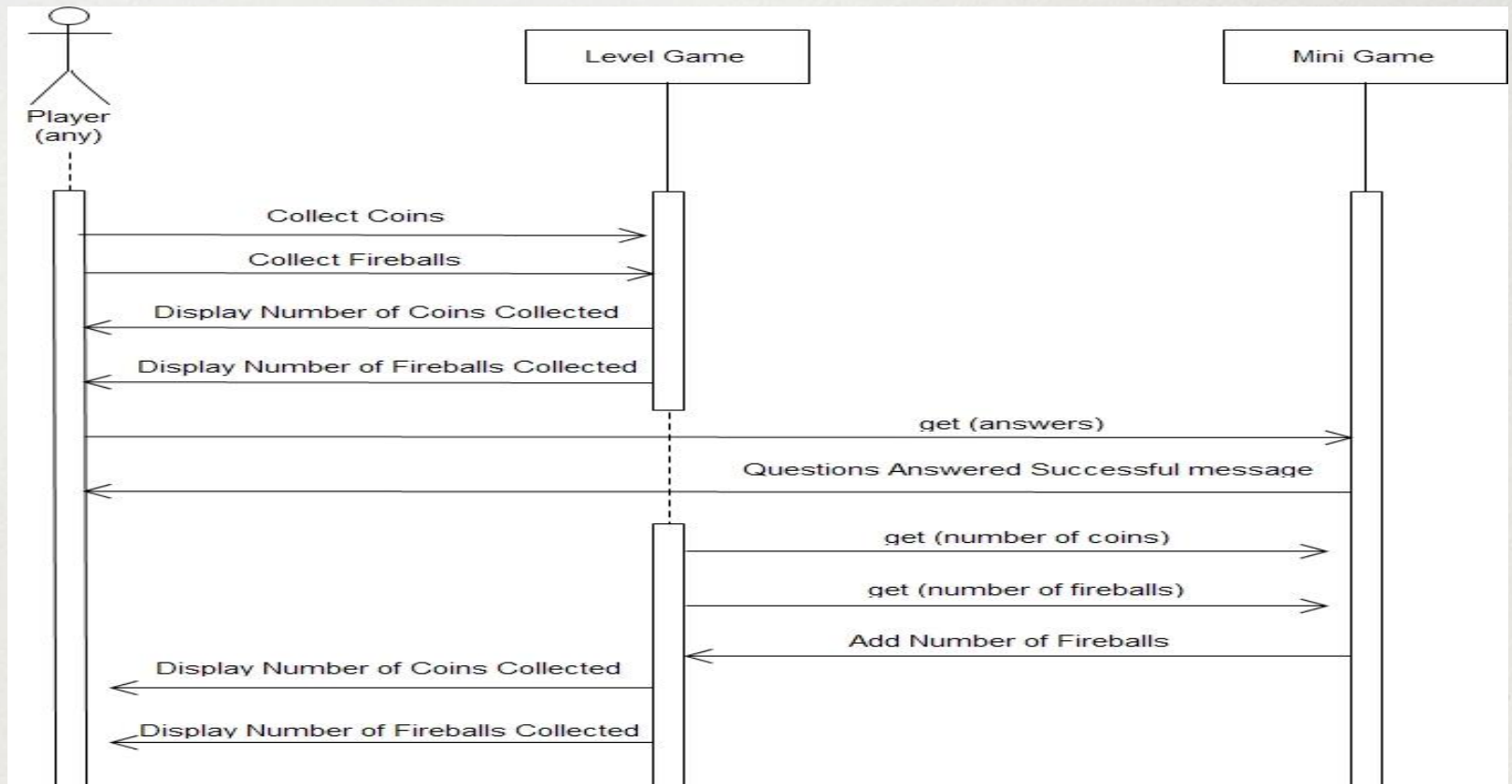
# Sequence Diagram (Cont')

## 2. Character Selection



# Sequence Diagram (Cont')

## 3. Success in Level Game and Mini Game





# Sequence Diagram (Cont')


## 3. Success in Level Game and Mini Game

Mario


### Mini Game

**Time's up!**

1.	$6 + 4$	=	<input type="text" value="10"/>
2.	$10 - 10$	=	<input type="text" value="0"/>
3.	$44 + 32$	=	<input type="text" value="76"/>
4.	$31 - 18$	=	<input type="text" value="13"/>
5.	$53 - 68$	=	<input type="text" value="-15"/>
6.	$15 + 42$	=	<input type="text" value="57"/>
7.	$481 + 27$	=	<input type="text" value="514"/>
8.	$152 + 420$	=	<input type="text" value="572"/>
9.	$825 - 647$	=	<input type="text"/>
10.	$166 - 779$	=	<input type="text"/>



Message

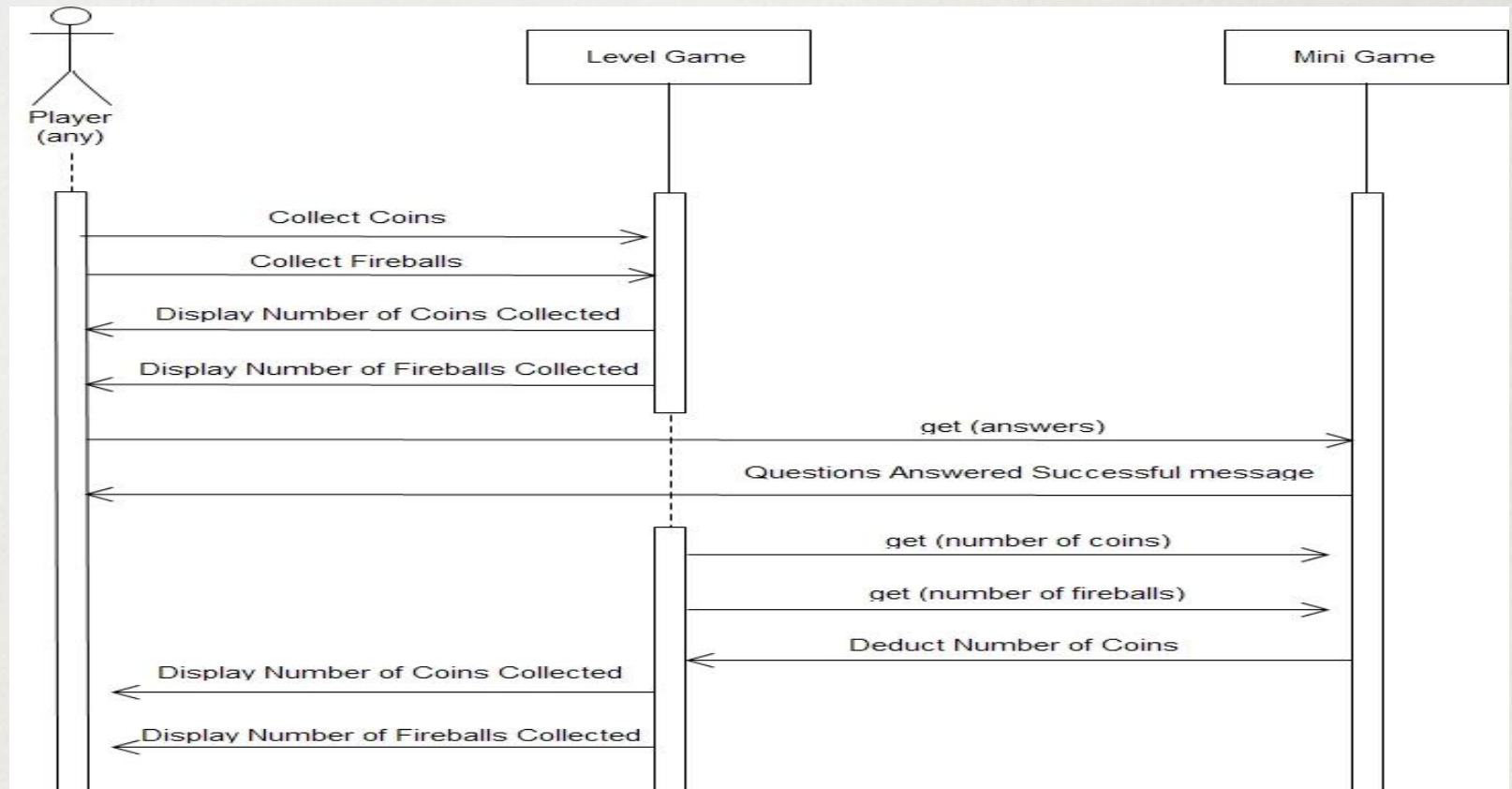
 Congratulations, you had answered most of the questions correctly and 5 fireballs are added to you. Enter Level 2.





# Sequence Diagram (Cont')

## 4. Success in Level Game and Fail in Mini Game (Enough Coins)



# Sequence Diagram (Cont')


## 4. Success in Level Game and Fail in Mini Game (Enough Coins)

Mario


### Mini Game

**Time's up!**


1.	$6 + 4$	=	<input type="text" value="10"/>
2.	$10 - 10$	=	<input type="text" value="0"/>
3.	$44 + 32$	=	<input type="text" value="76"/>
4.	$31 - 18$	=	<input type="text" value="13"/>
5.	$53 - 68$	=	<input type="text" value="-15"/>
6.	$15 + 42$	=	<input type="text" value="57"/>
7.	$481 + 27$	=	<input type="text" value="514"/>
8.	$152 + 420$	=	<input type="text" value="572"/>
9.	$825 - 647$	=	<input type="text"/>
10.	$166 - 779$	=	<input type="text"/>



Fail

 Sorry, you fail to answer most of the questions, deduct 20 coins to enter Level 2?

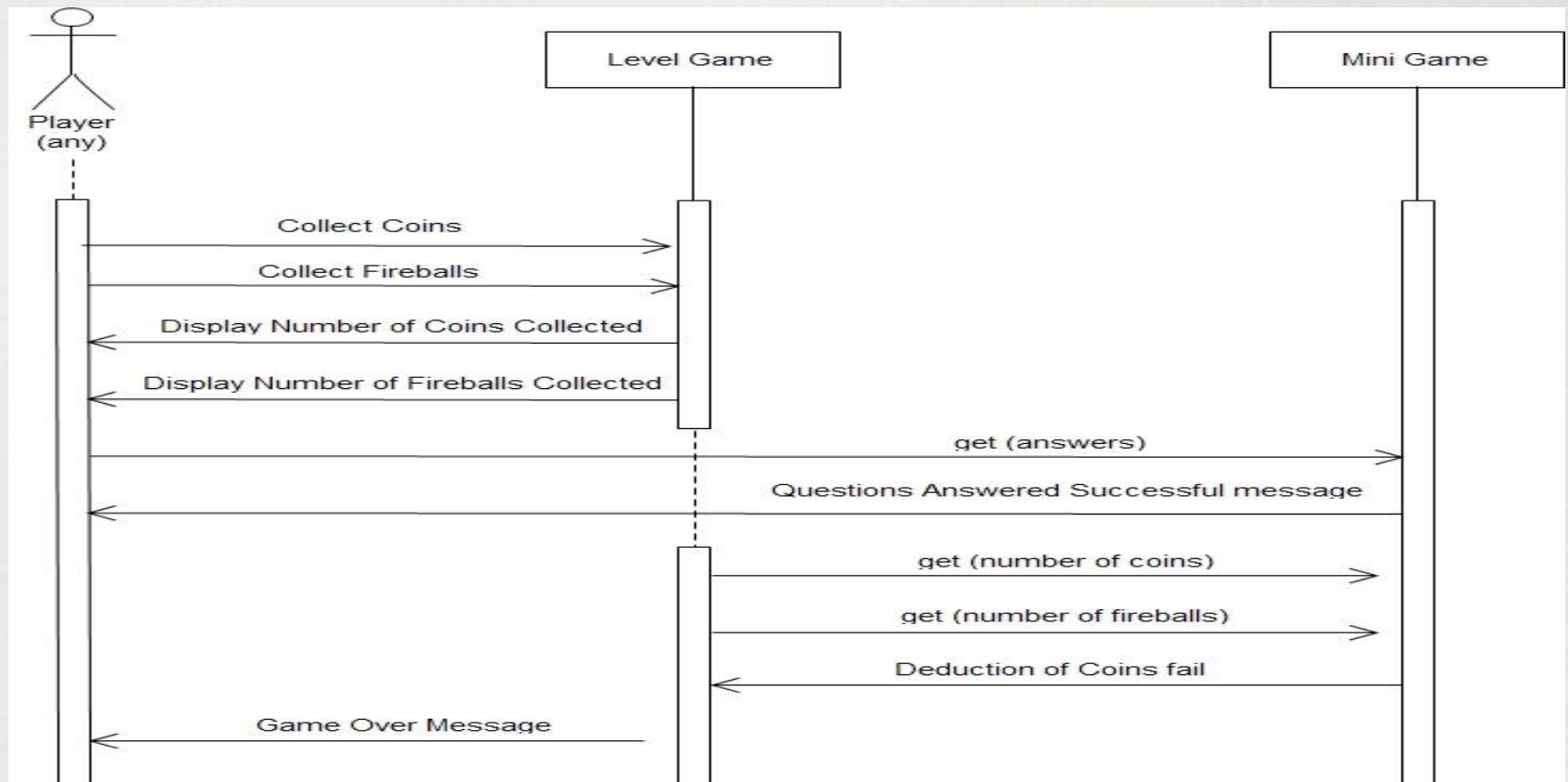
Message

 Enter Level 2.



# Sequence Diagram (Cont')

## 5. Success in Level Game and Fail in Mini Game (Not Enough Coins)





# Sequence Diagram (Cont')


## 5. Success in Level Game and Fail in Mini Game (Not Enough Coins)

Mario


### Mini Game

**Time's up!**


1.	$6 + 4$	=	<input type="text" value="10"/>
2.	$10 - 10$	=	<input type="text" value="0"/>
3.	$44 + 32$	=	<input type="text" value="76"/>
4.	$31 - 18$	=	<input type="text" value="13"/>
5.	$53 - 68$	=	<input type="text" value="-15"/>
6.	$15 + 42$	=	<input type="text" value="57"/>
7.	$481 + 27$	=	<input type="text" value="514"/>
8.	$152 + 420$	=	<input type="text" value="572"/>
9.	$825 - 647$	=	<input type="text"/>
10.	$166 - 779$	=	<input type="text"/>

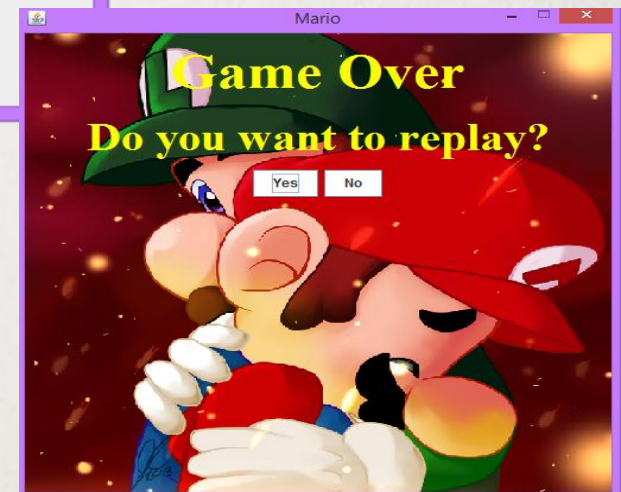


Fail

 Sorry, you fail to answer most of the questions, deduct 20 coins to enter Level 2?

Message

 Sorry, your coin(s) is less than 20.



# Sequence Diagram (Cont')

## 6. Fail in Level Game



# Sequence Diagram (Cont')

## 6. Fail in Level Game





# Architecture Design

1. Consists of three main components:
  - User Interface (UI)
  - Level Game Play
  - Mini Game Play
2. User Interface (UI) provides graphical interfaces to player.
3. UI depends on:
  - Set/ Get Character Name
  - Set/ Get Character Chosen

# Architecture Design (Cont')

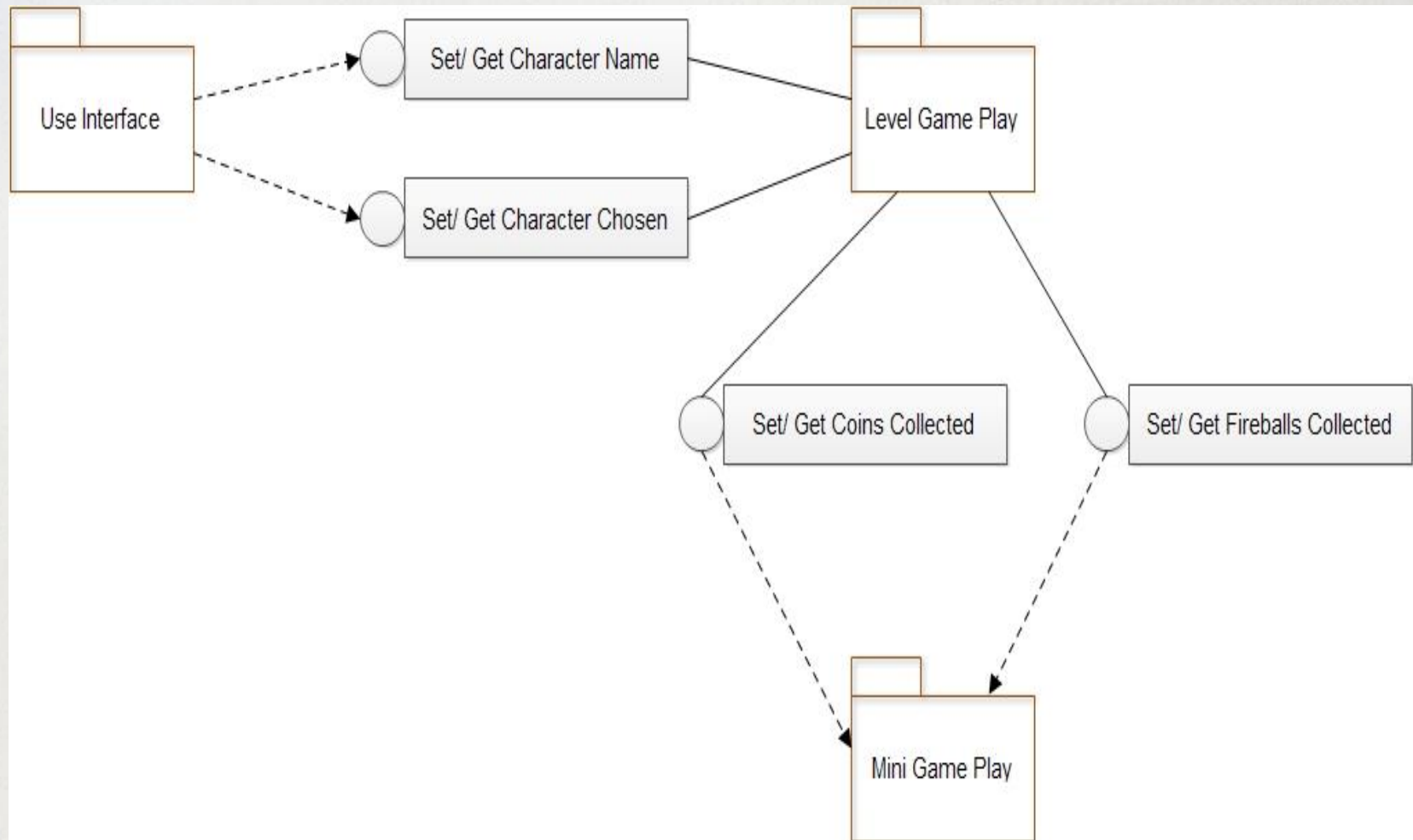
1. Level Game Play is responsible to display the chosen character, coins and fireballs collected corresponding to the different game play.
2. Level Game Play provides two interfaces:
  - Set character name/ set character chosen/ set coins collected/ set fireballs collected
  - Get character name/ set character chosen/ set coins collected/ set fireballs collected

# Architecture Design (Cont')

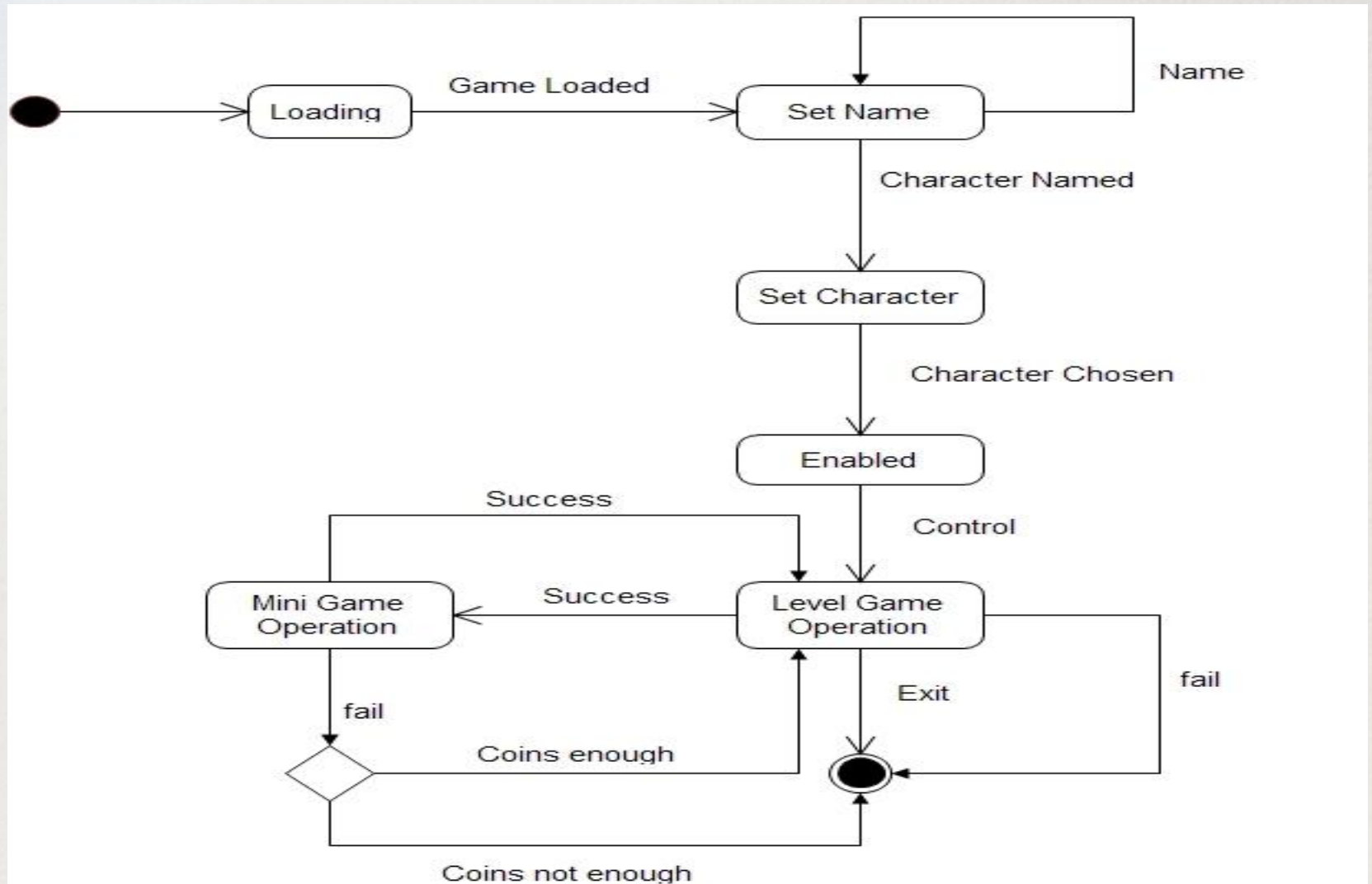
1. Mini Game Play depends on two interfaces:
  - Set/ Get Coins Collected
  - Set/ Get Fireballs Collected
2. Refer Component Diagram



# Architecture Design (Cont)



# High Level Design – Operation



# Video of the game (Level 1 and Mini Game)





# Video of the game (Level 2 and fail Level 2)



**Questions**

**&**

**Answers**



**Thank**

**You**

