

ECSE 223 Iteration 4

Project Report  
ECSE 223 - Model Based Programming  
Team 02

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## Section 1: Start/Pause/Resume Game (Liang Zhao)

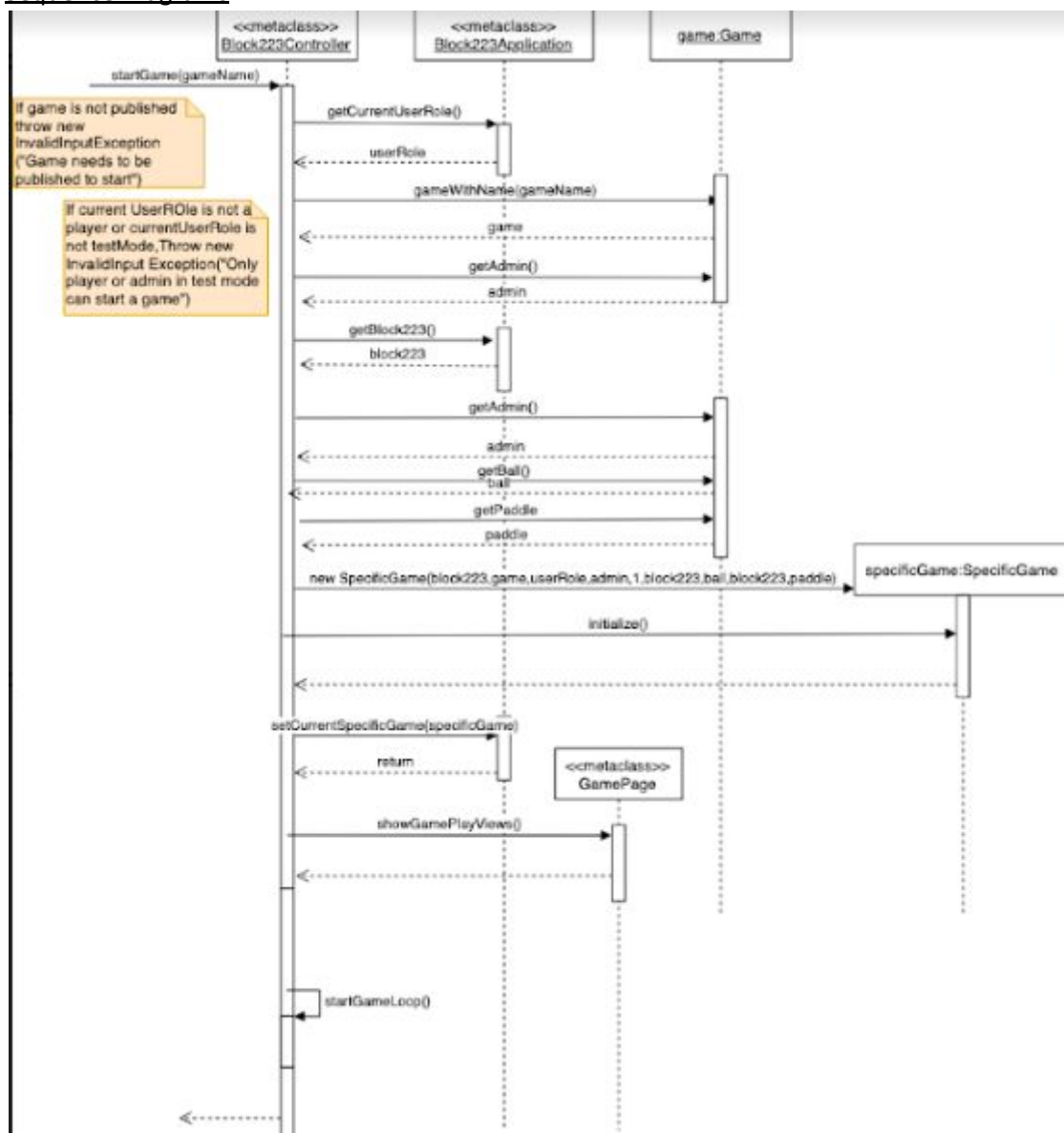
### Modifier Controller Interface

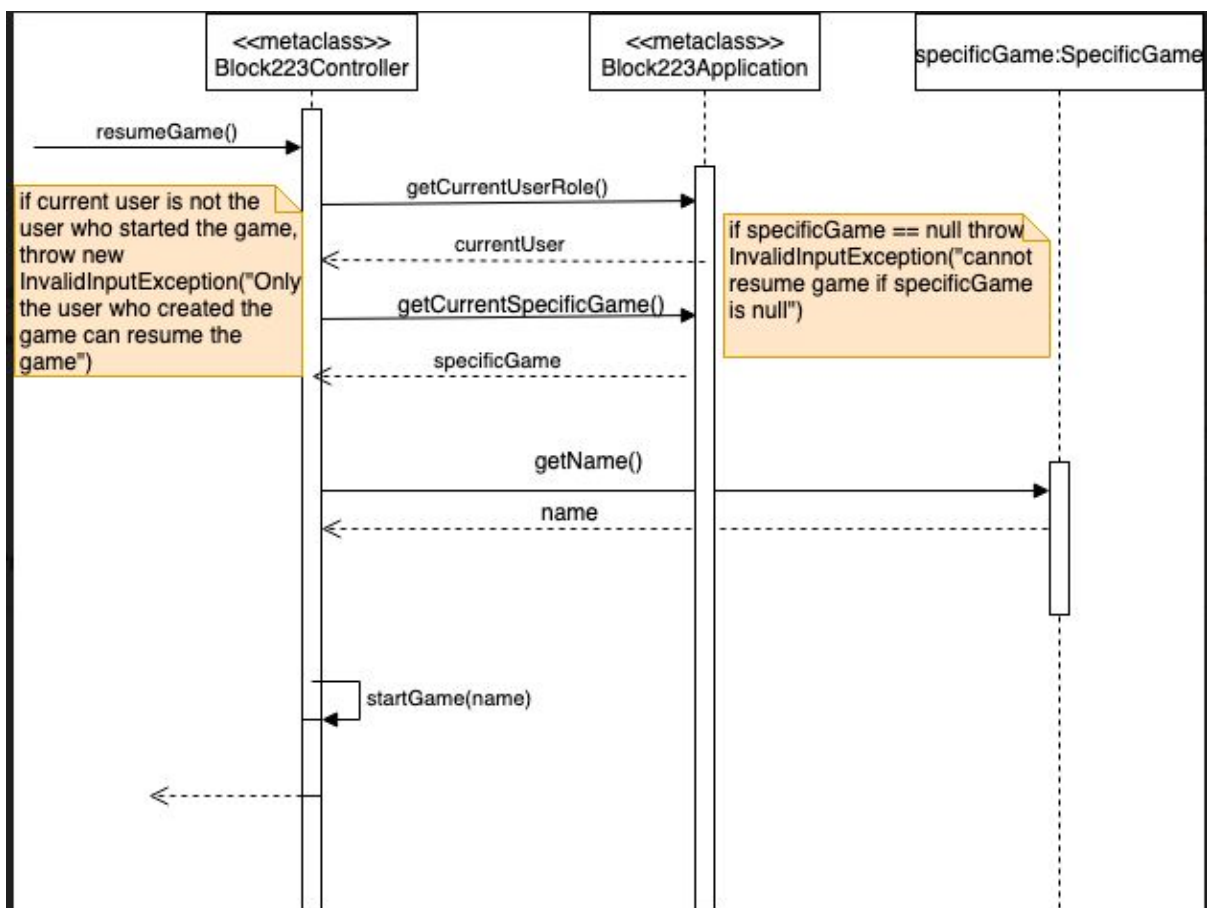
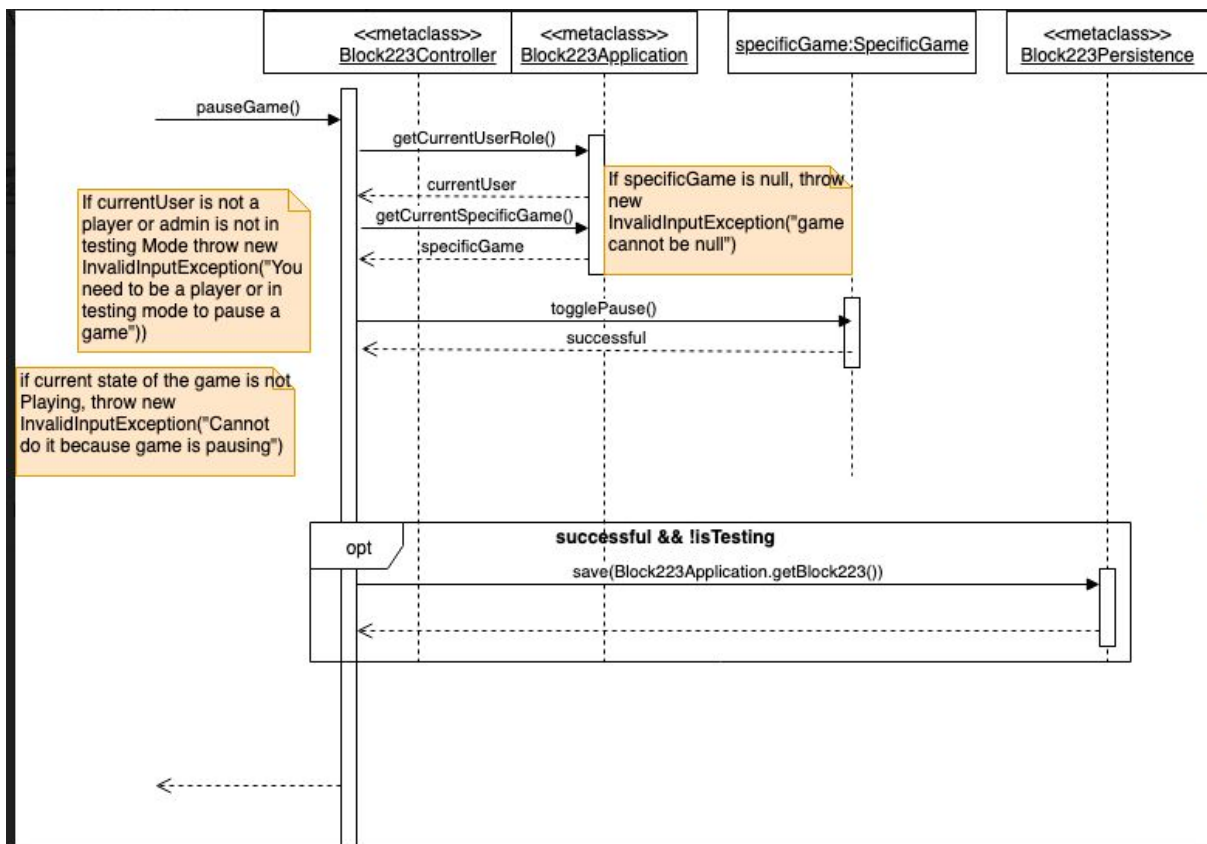
```
public static void startGame(String gameName) throws InvalidInputException;  
public static void pauseGame() throws InvalidInputException;  
public static void resumeGame() throws InvalidInputException;  
public static SpecificGame getCurrentSpecificGame() throws InvalidInputException;  
Helper Method in SpecificGame  
private List<SpecificBlocks> getRemainingSpecificBlocksOfLevel();
```

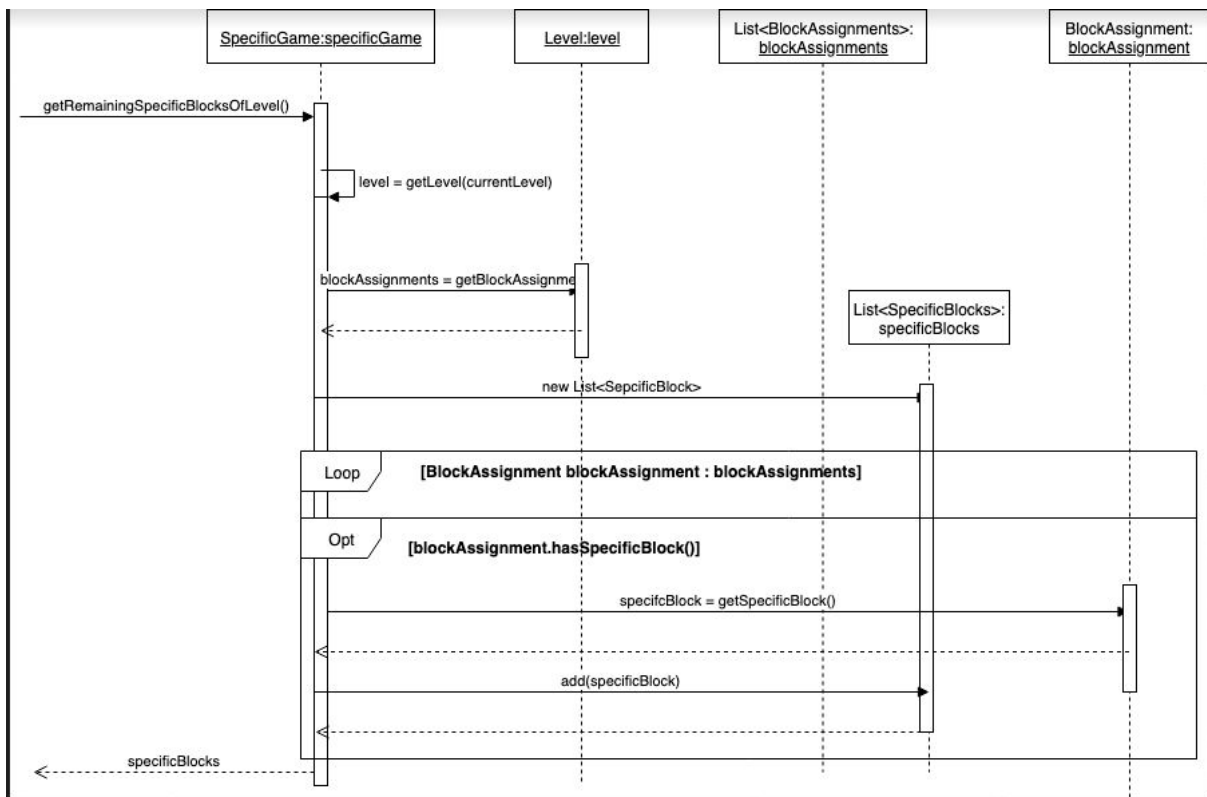
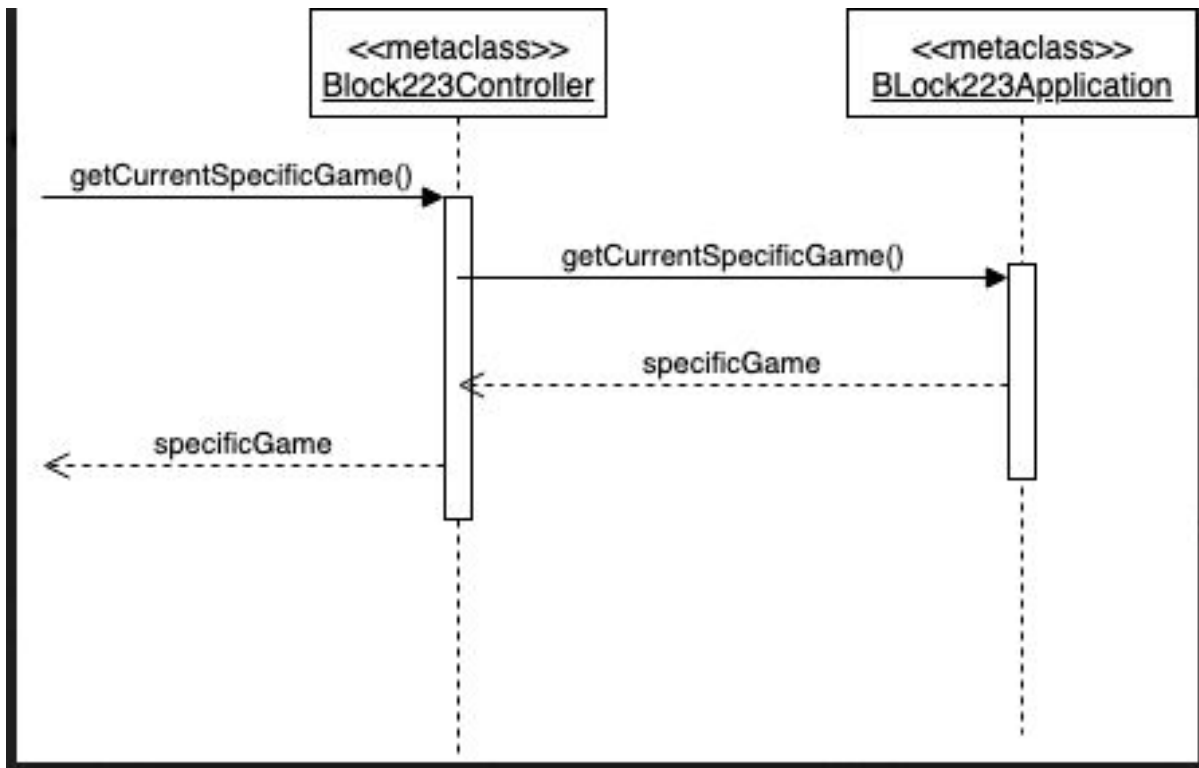
### Guard Methods

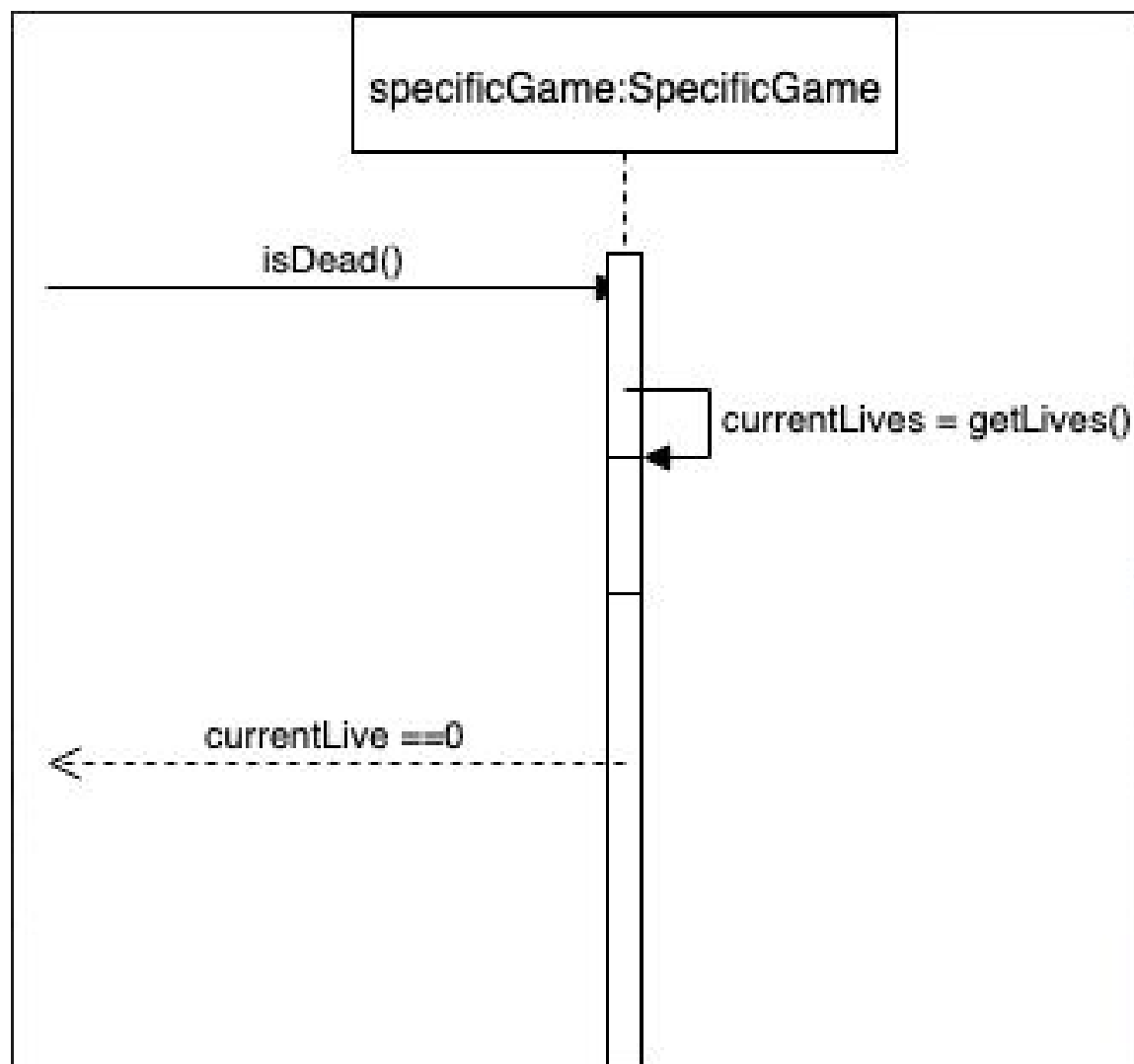
```
private boolean isDead();  
private boolean isSpaceBarPressed(char inputKey);  
private boolean isFinishedLevel();  
private boolean isFinishedGame();
```

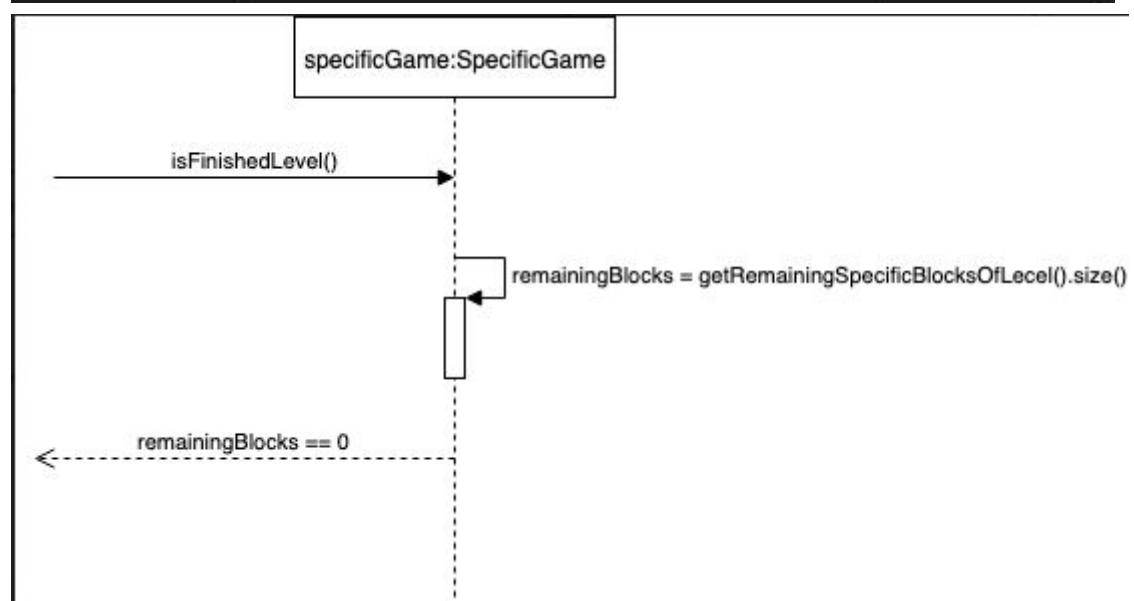
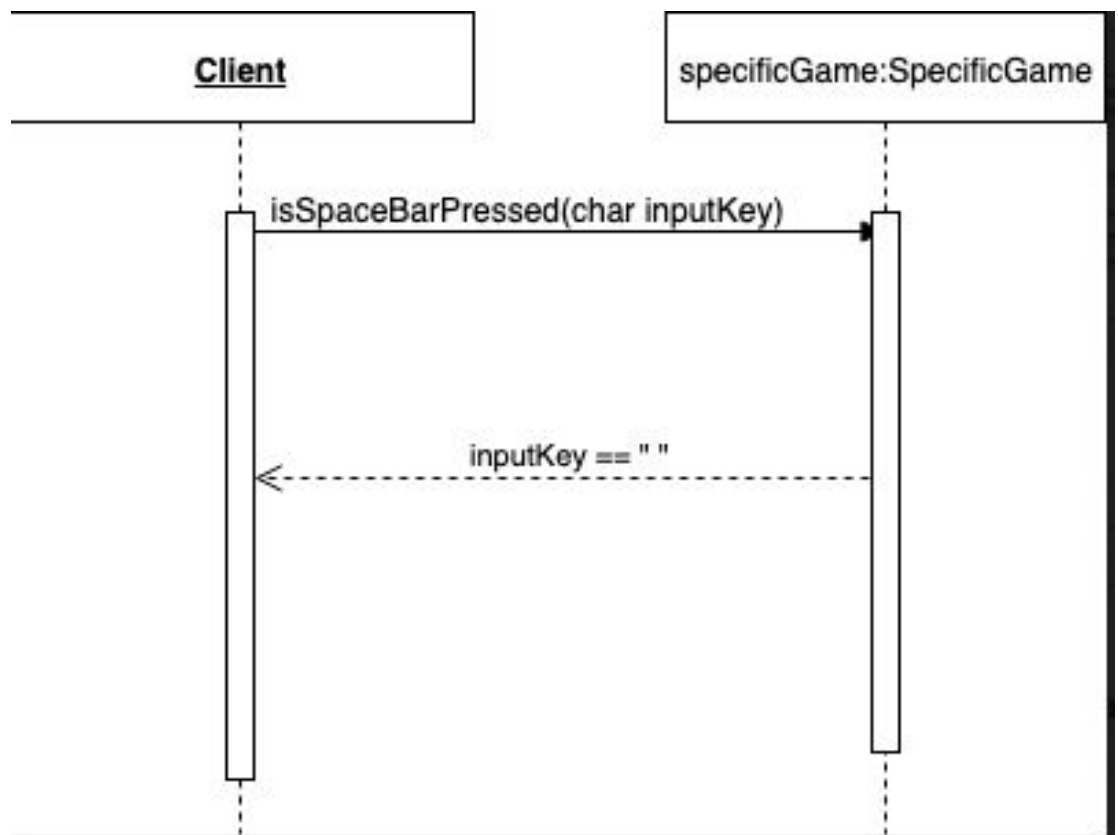
### Sequence Diagrams

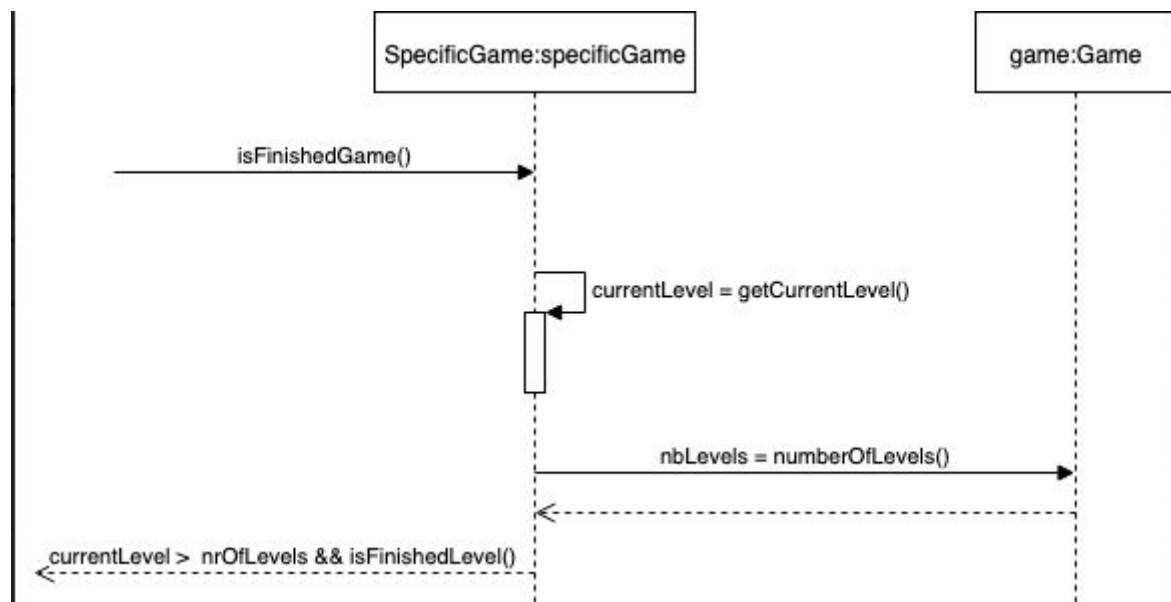










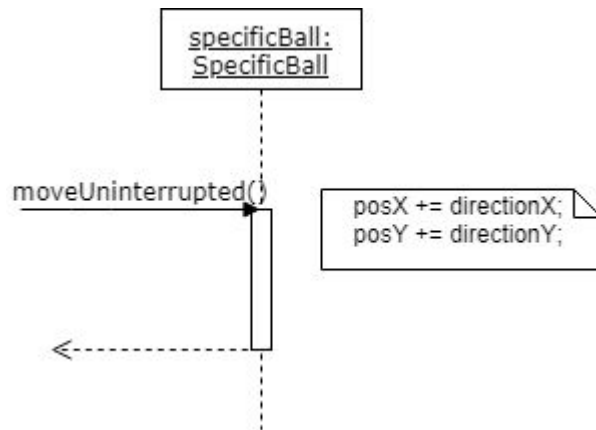


## Section 2: Move Ball (Elie Ruban)

### Action Methods

private void moveUninterrupted()

### Sequence Diagrams





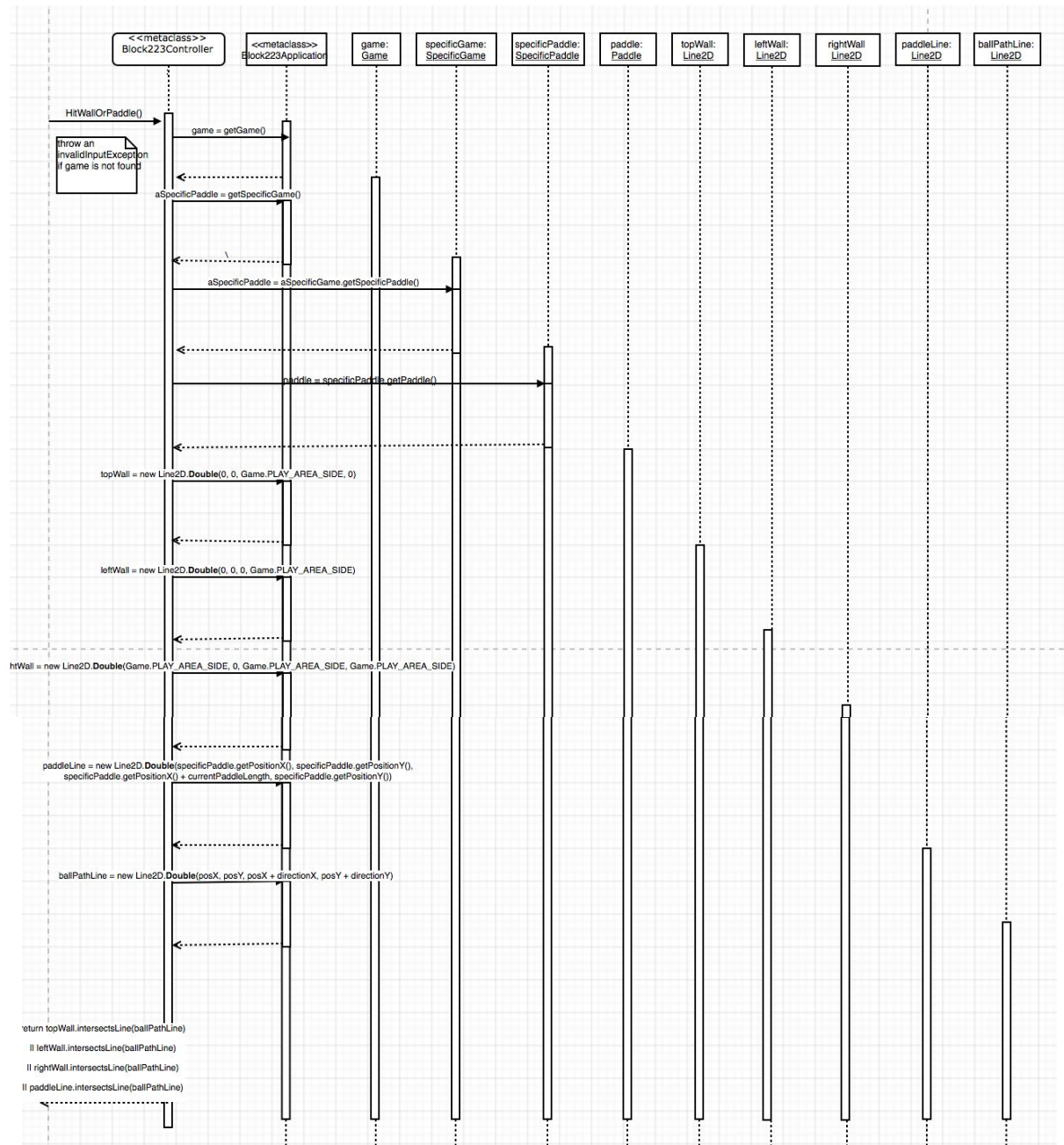
### Section 3: Ball hits paddle or wall (Yuhang Zhang)

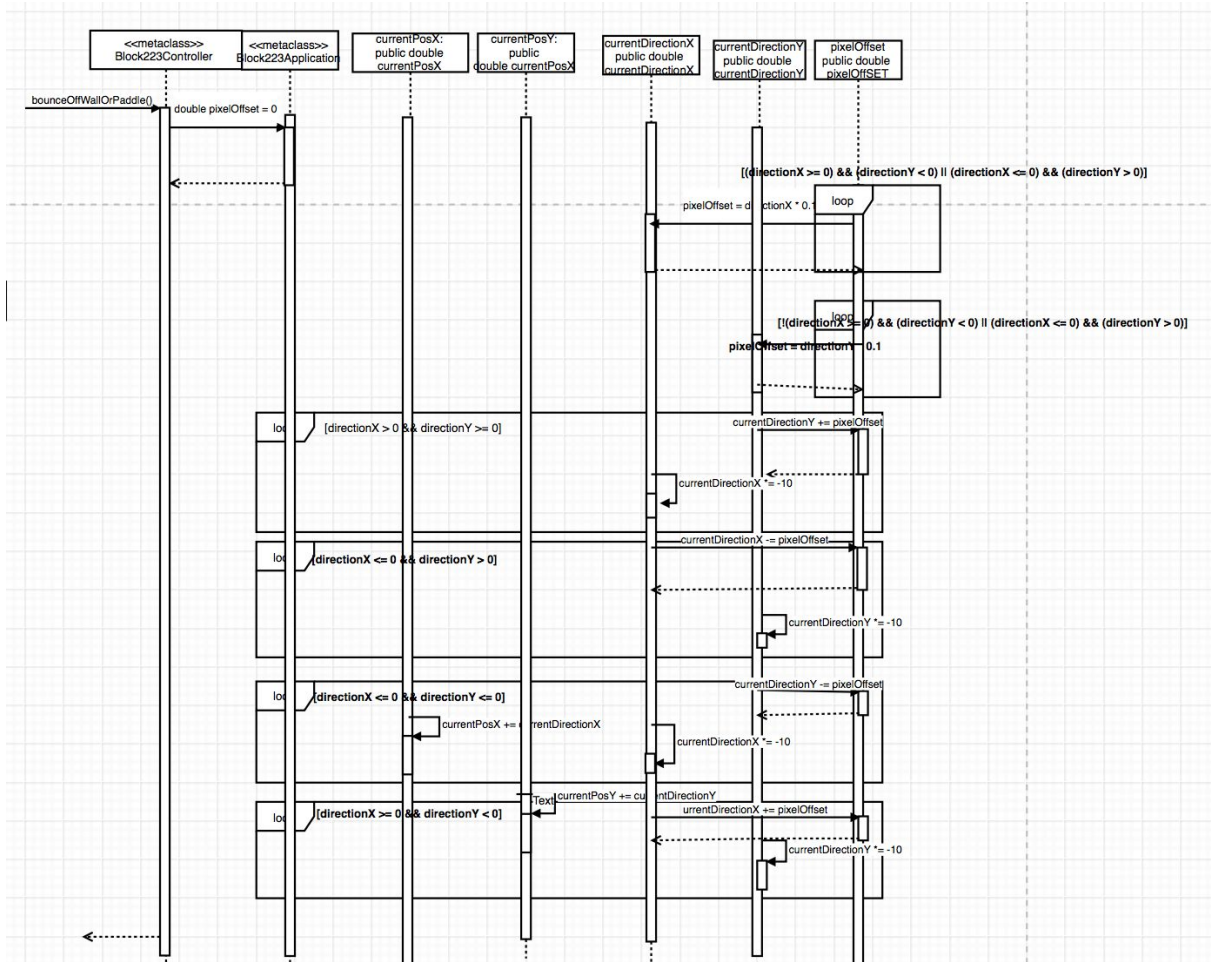
#### Action Methods

```
private void bounceOffWallOrPaddle();
```

```
private boolean hitWallOrPaddle()throws invalidInputException;
```

#### Sequence Diagrams





## Section 4: Ball hits block (Jeffery Tang)

### Action Methods

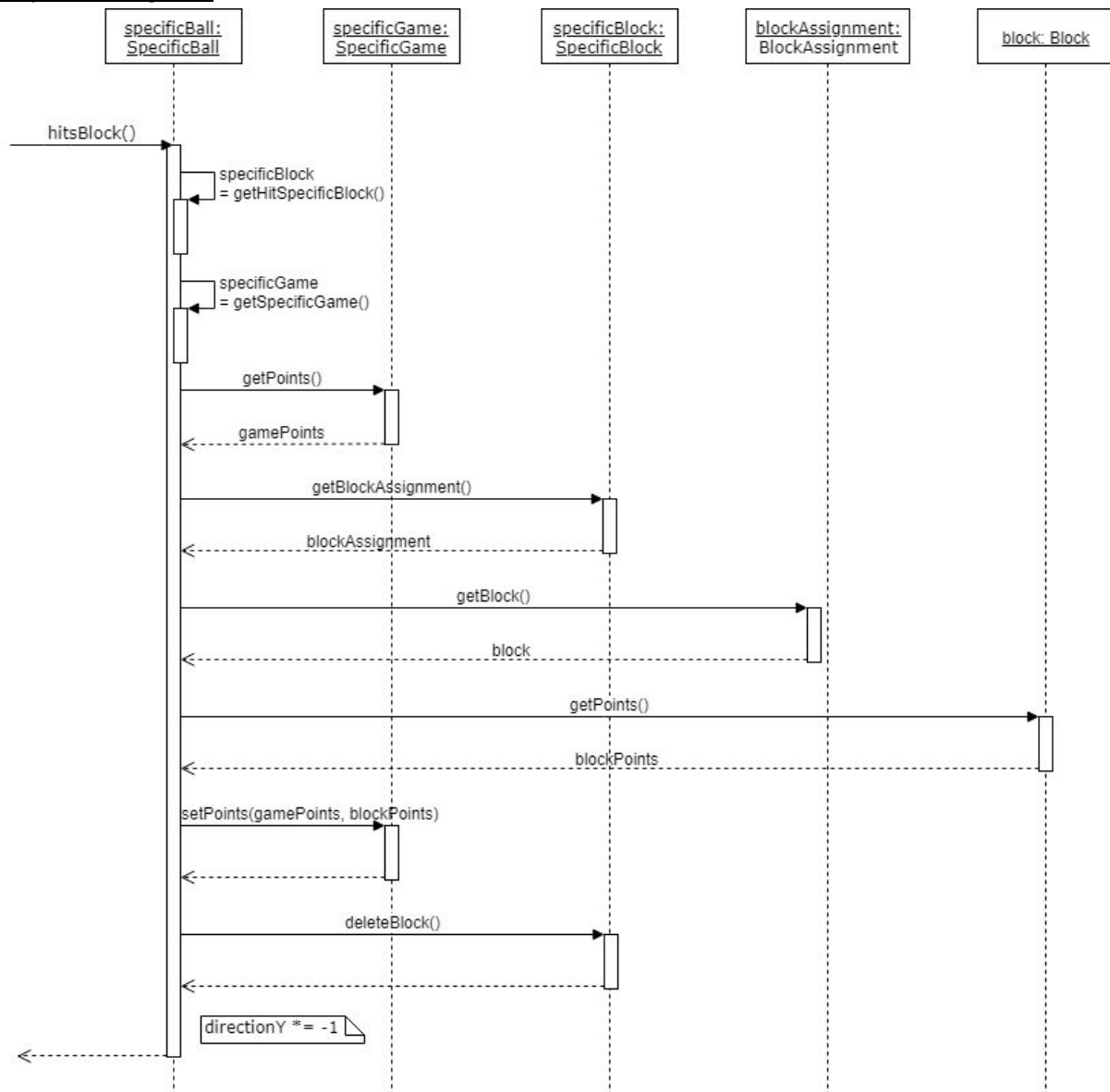
private void hitsBlock();

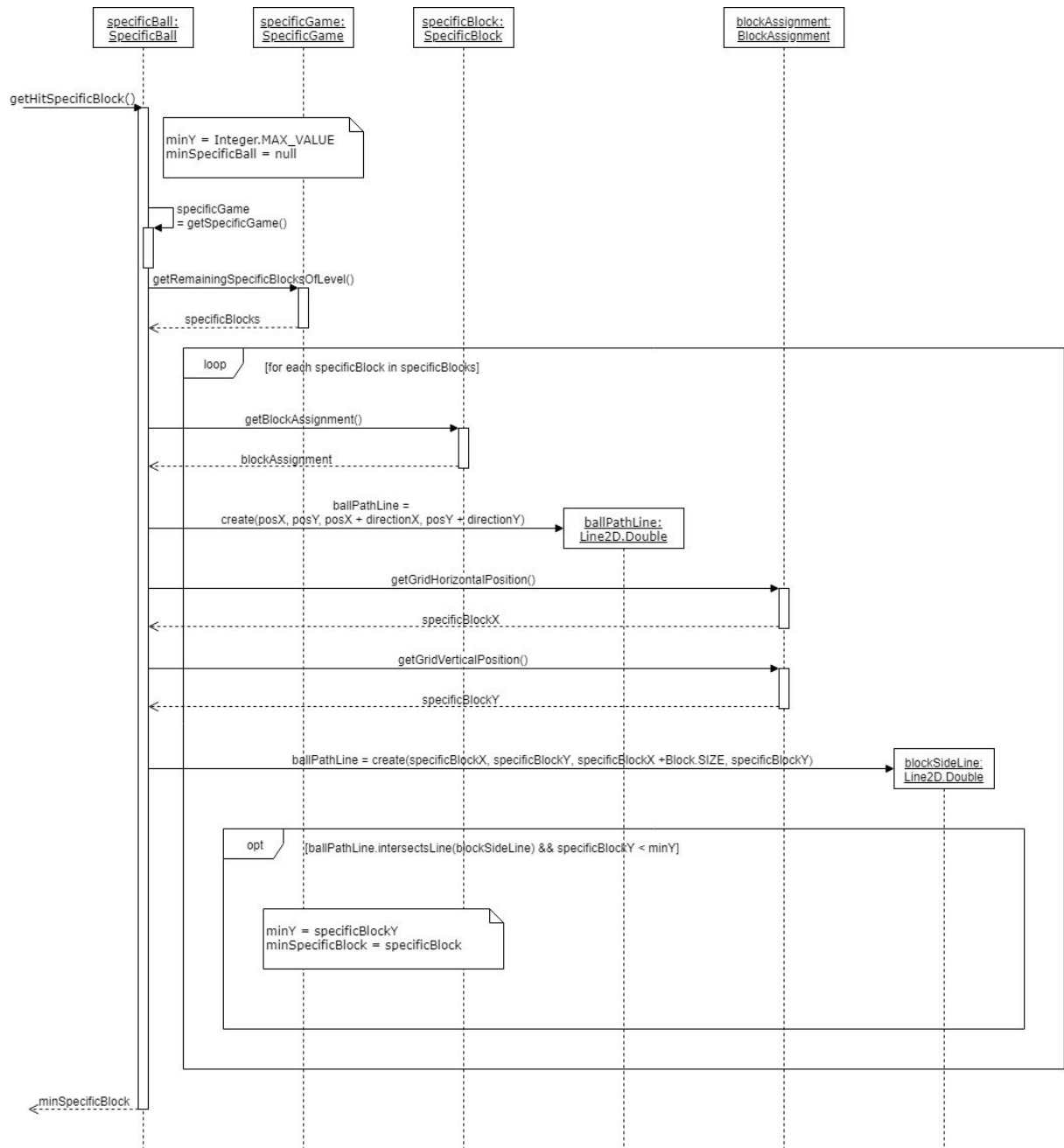
### Guard Methods

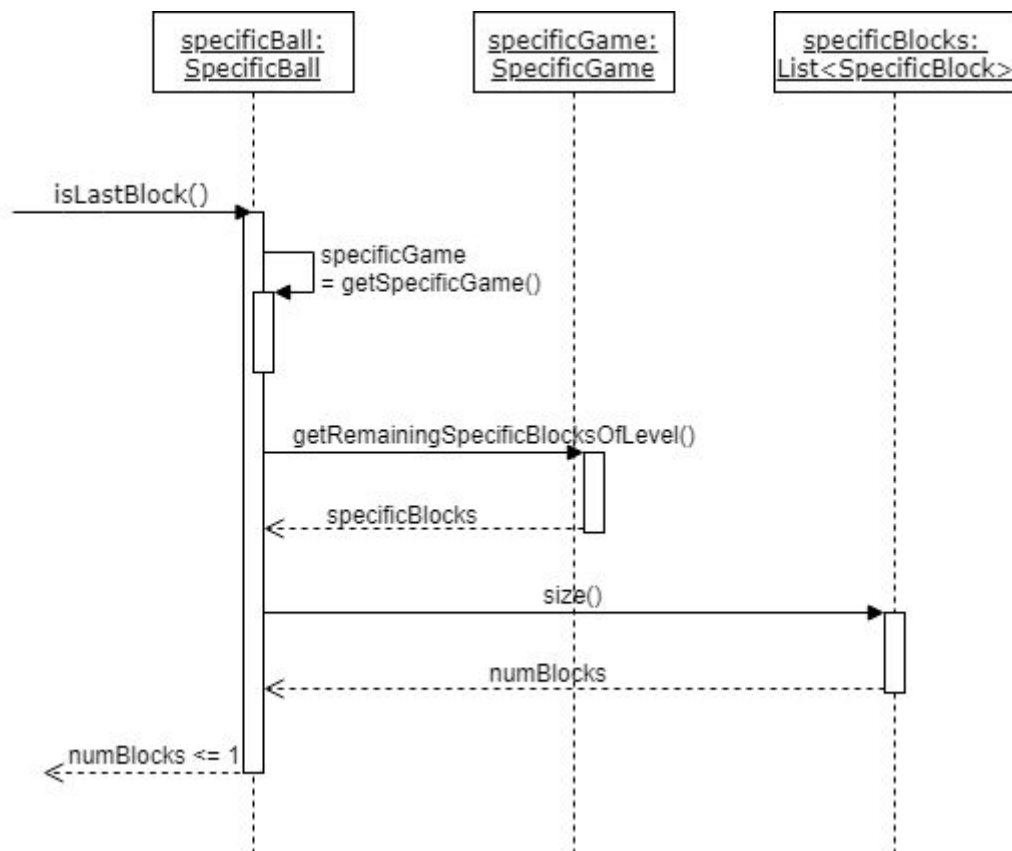
private boolean getHitSpecificBlock();

private boolean isLastBlock();

### Sequence Diagrams







## Section 5: Ball is out of bounds (Hanwen Wang)

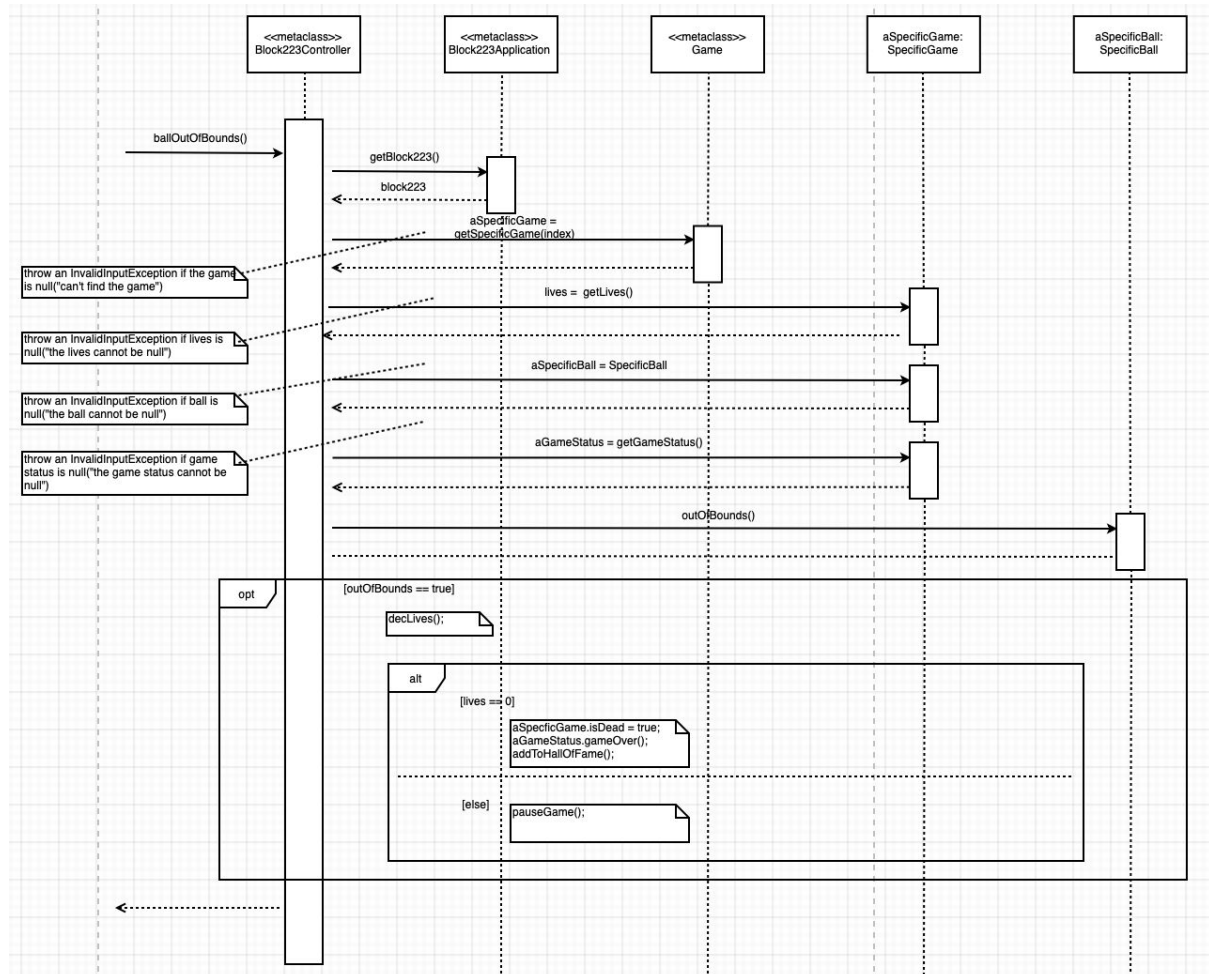
### Action Methods

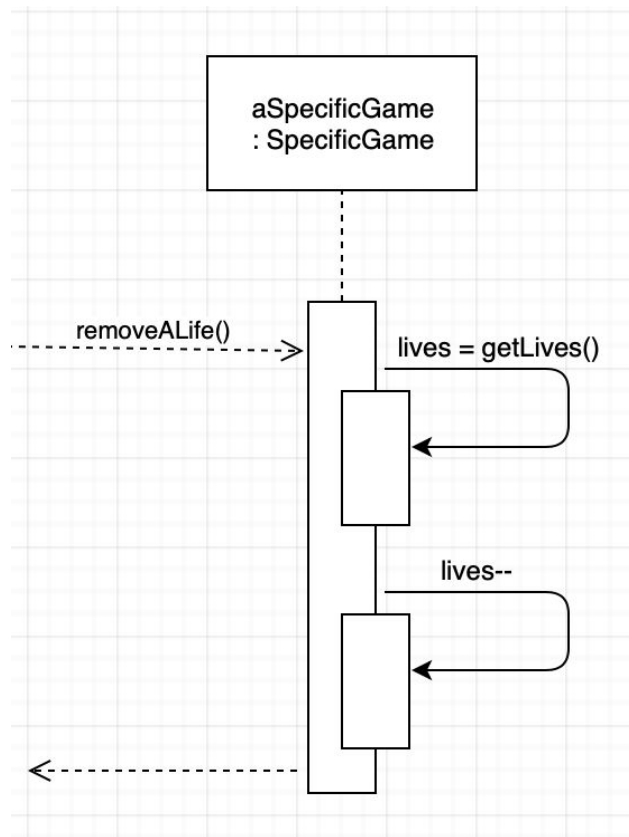
```
public static void ballOutOfBounds() throws invalidInputException;  
private void removeALife();
```

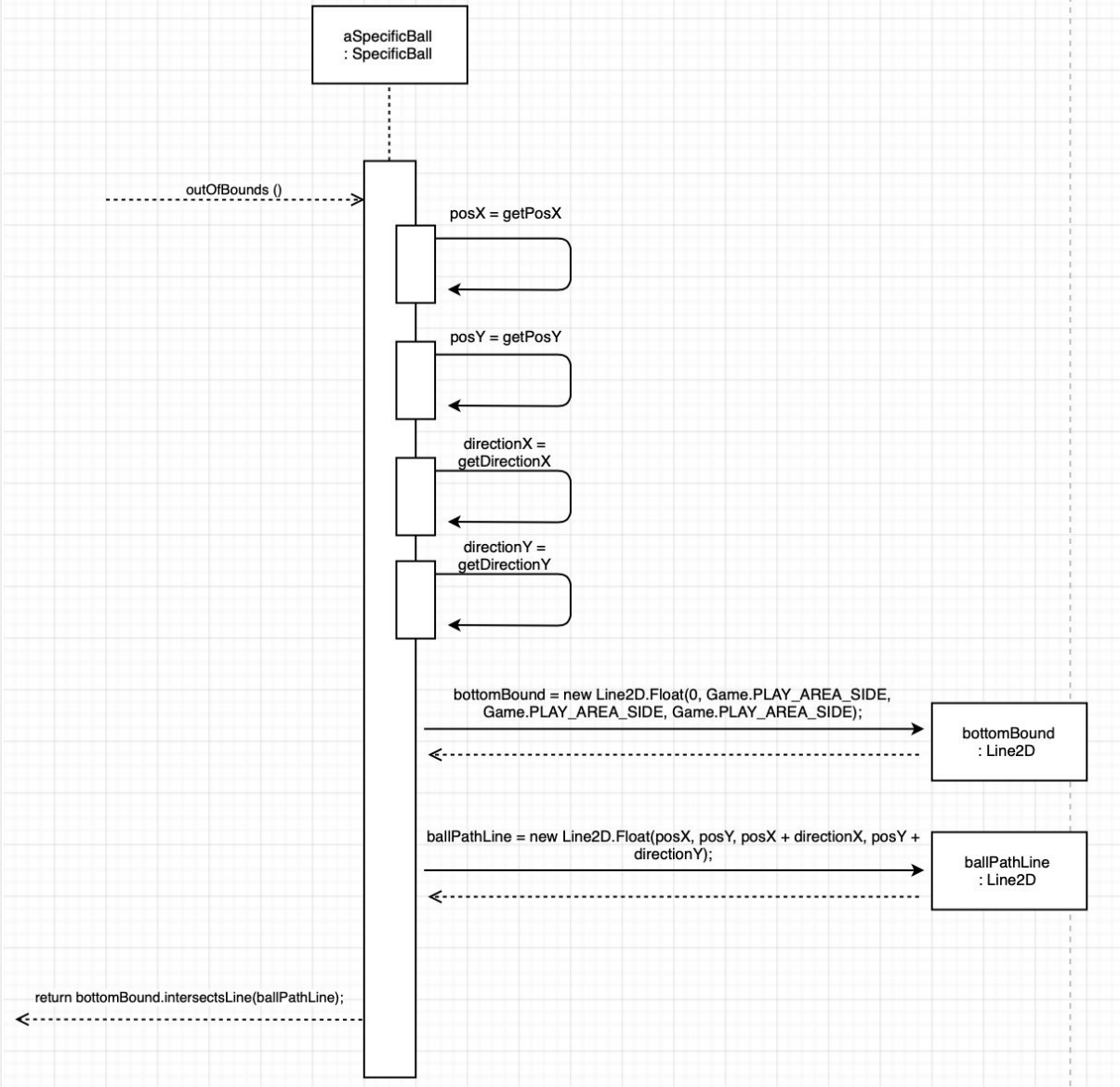
### Guard Methods

```
private boolean outOfBounds();
```

### Sequence Diagrams









## Section 6: View hall of fame (Yuxiang Ma)

### Modifier Controller Interface

```
public static void addToHallOfFame(SpecificGame specificGame) throws InvalidInputException;  
public static void toPrevPage(HallOfFame hallOfFame) throws InvalidInputException;  
public static void toNextPage(HallOfFame hallOfFame) throws InvalidInputException;
```

### Query Controller Interface

```
public List<TOHallOfFame> fetchCurrentPage(HallOfFame hallOfFame) throws InvalidInputException;
```

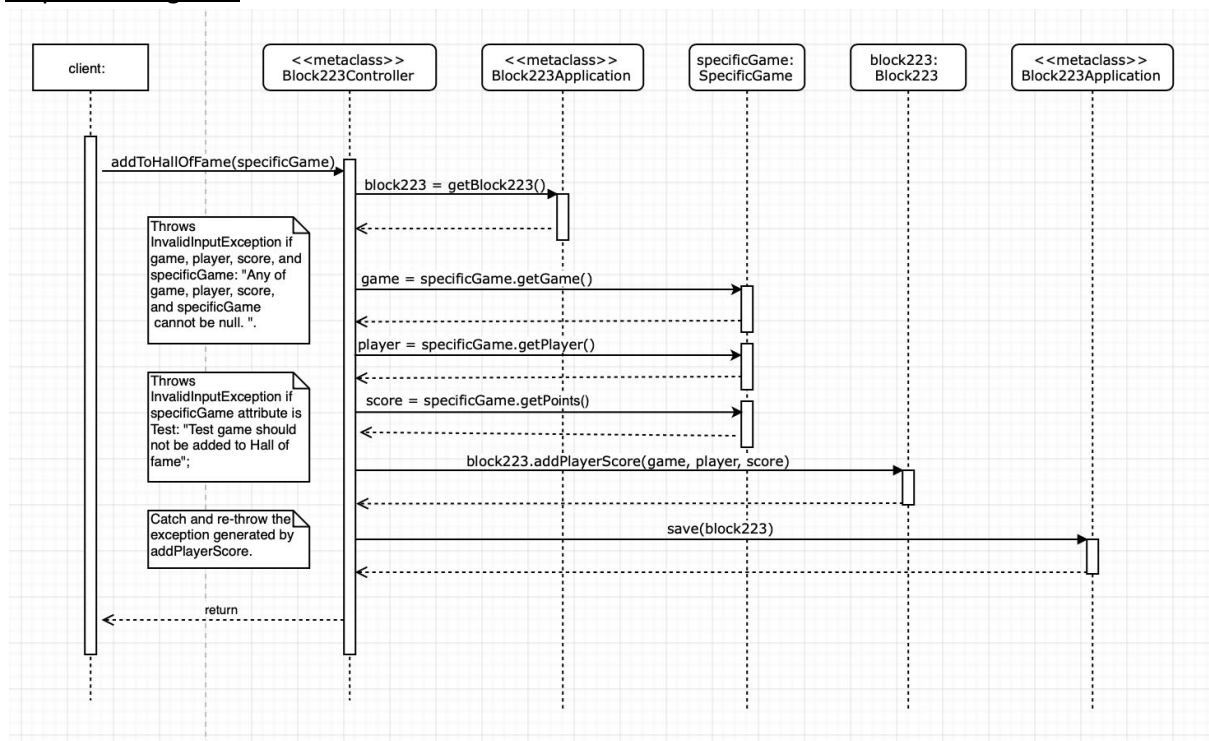
### Action Methods

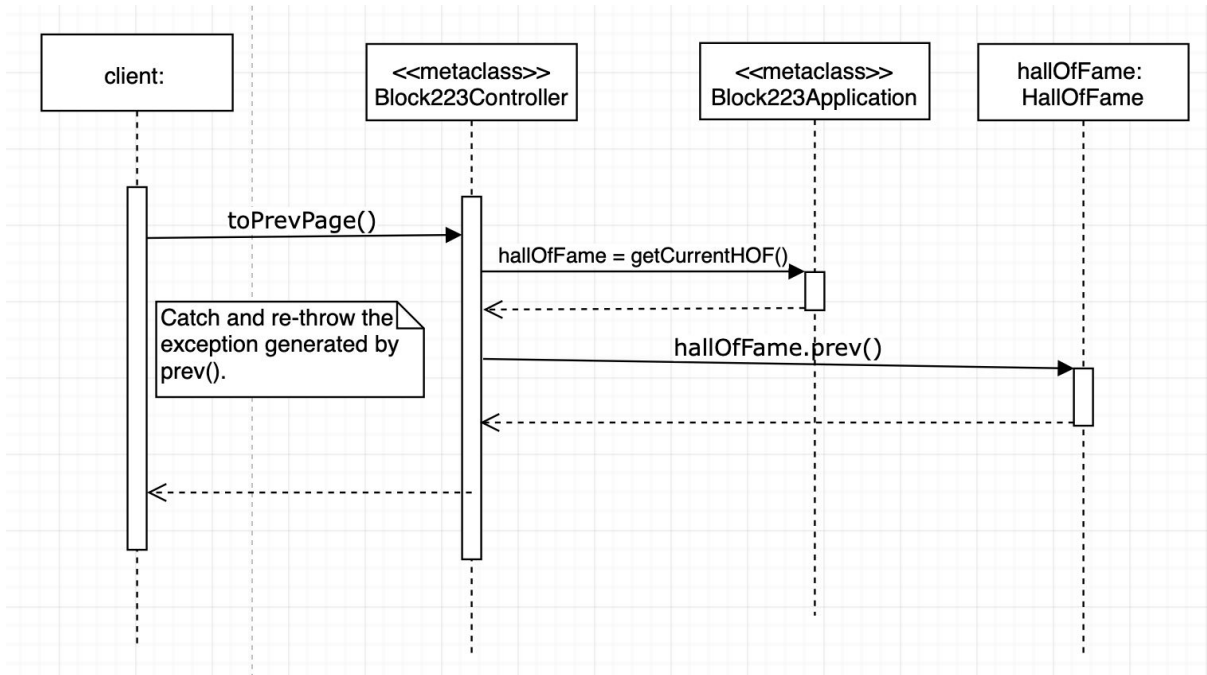
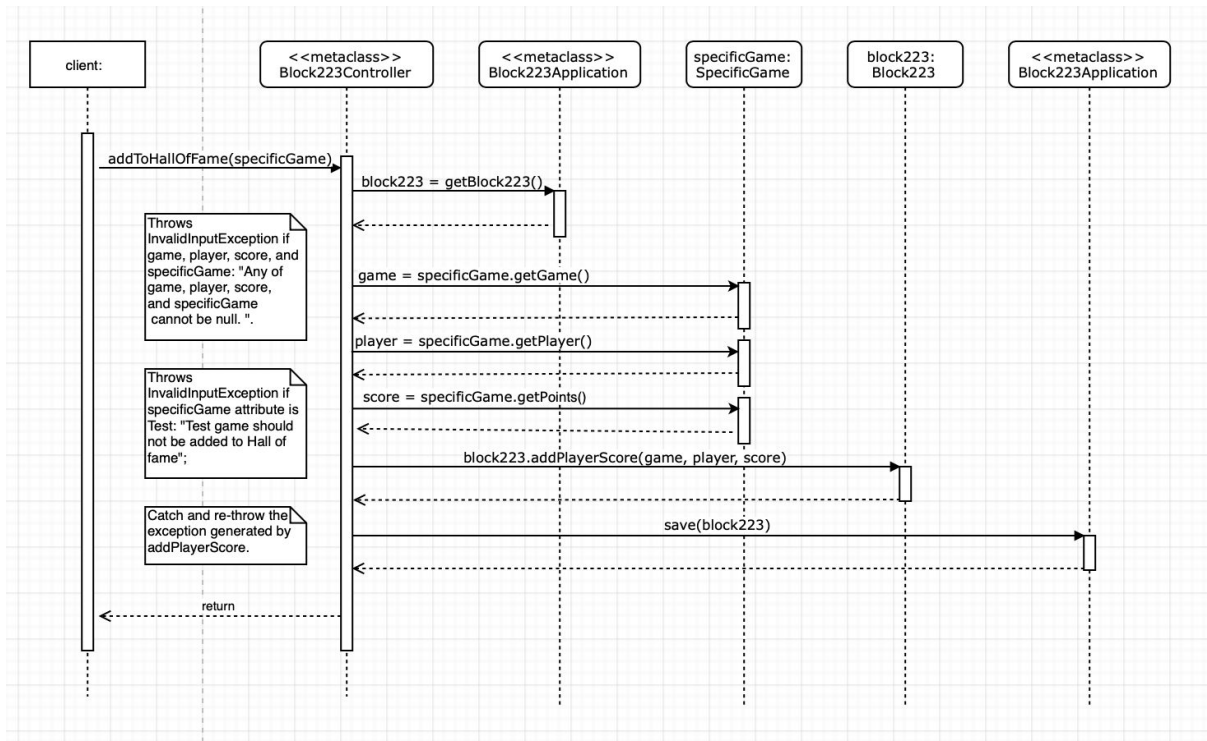
```
private List<PlayerScores> currentPage();  
private List<PlayerScores> currentLastPage();  
private void gotoNextPage();  
private void gotoPrevPage();
```

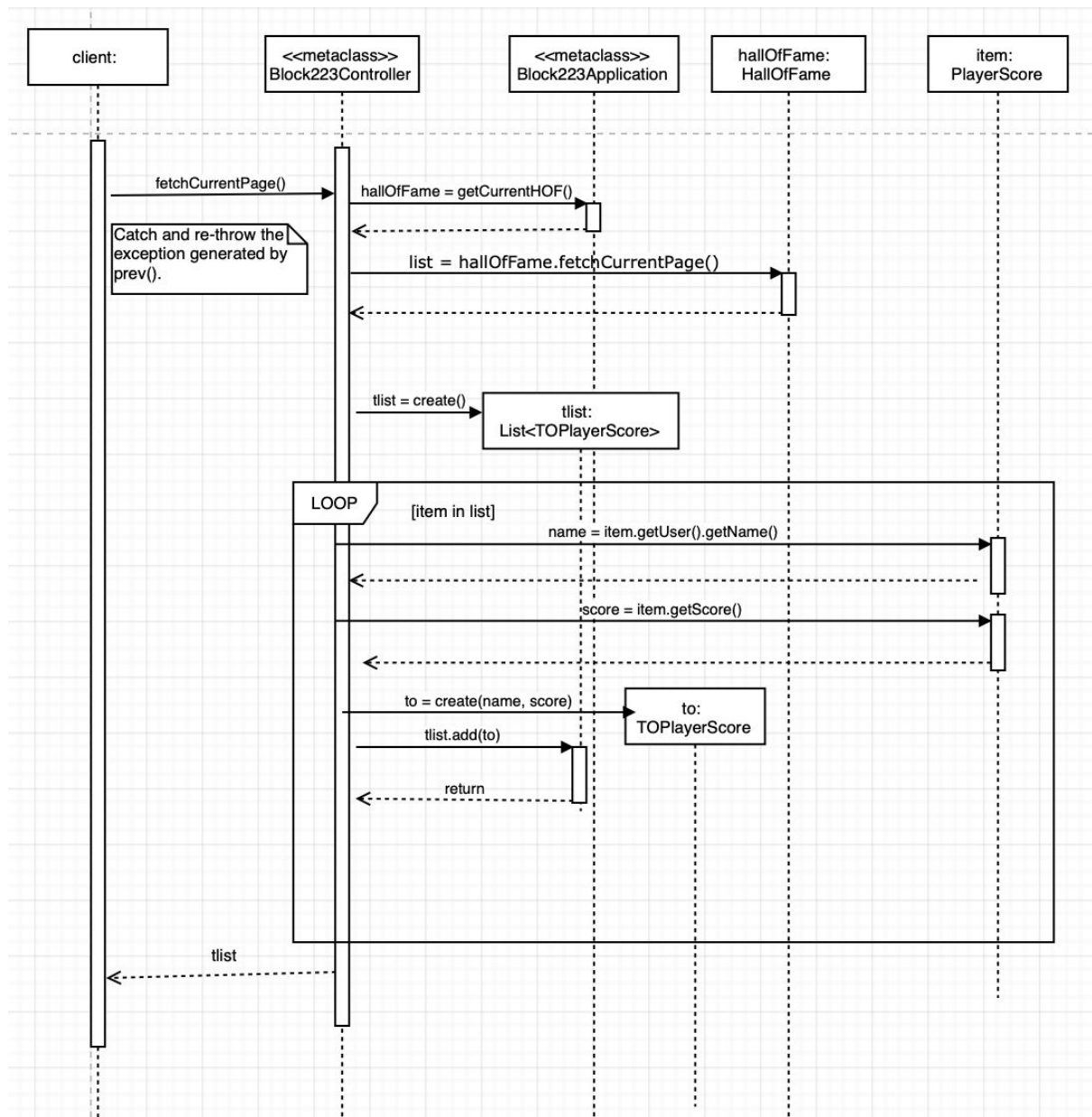
### Guard Methods

```
private boolean isReachingEndPage();  
private boolean isReachingFirstPage();  
private boolean isOnePage();
```

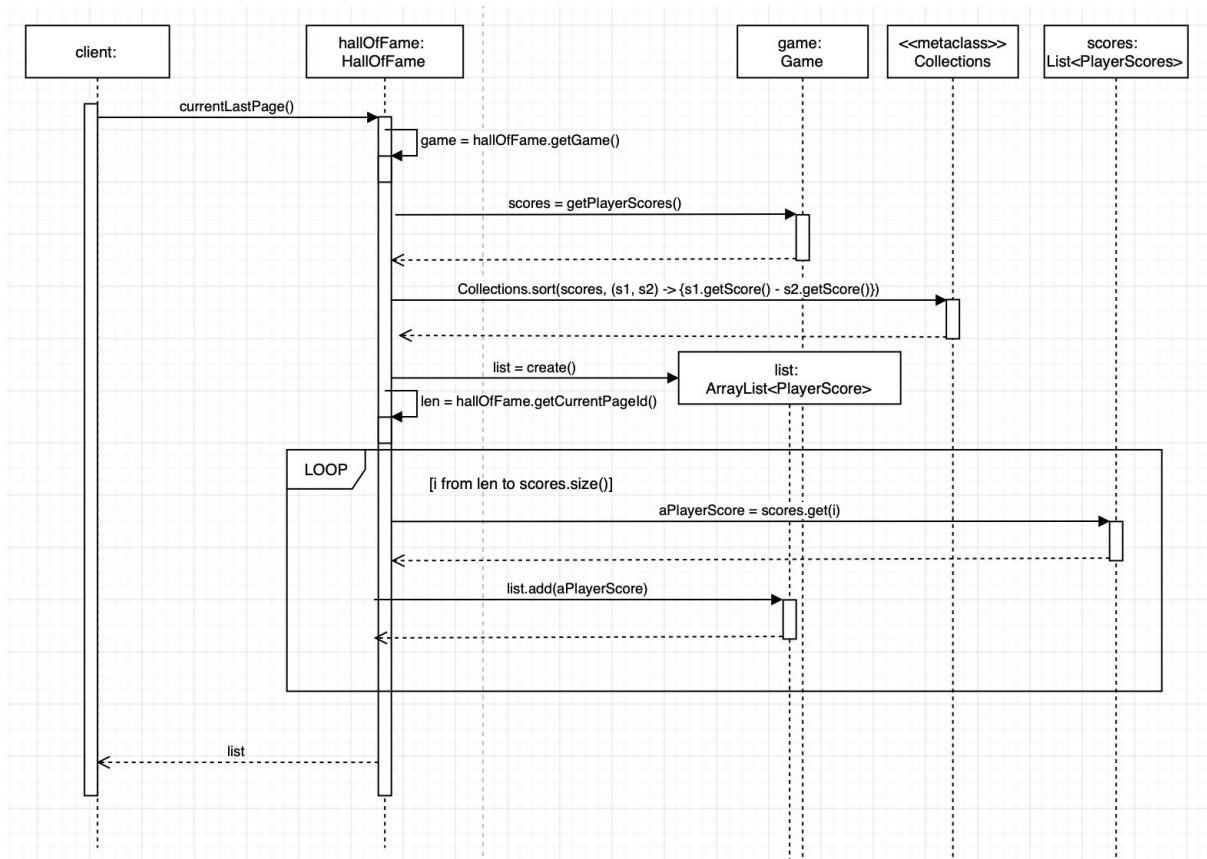
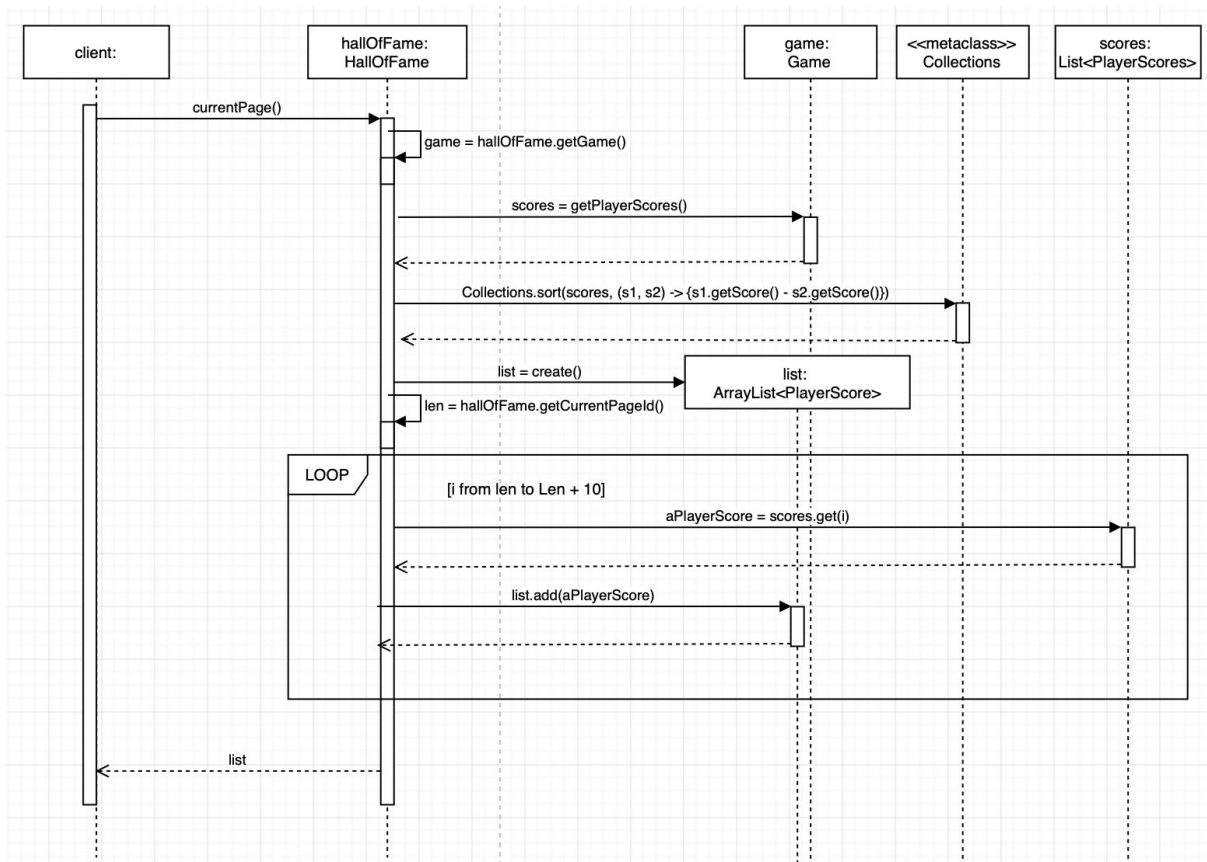
### Sequence Diagrams

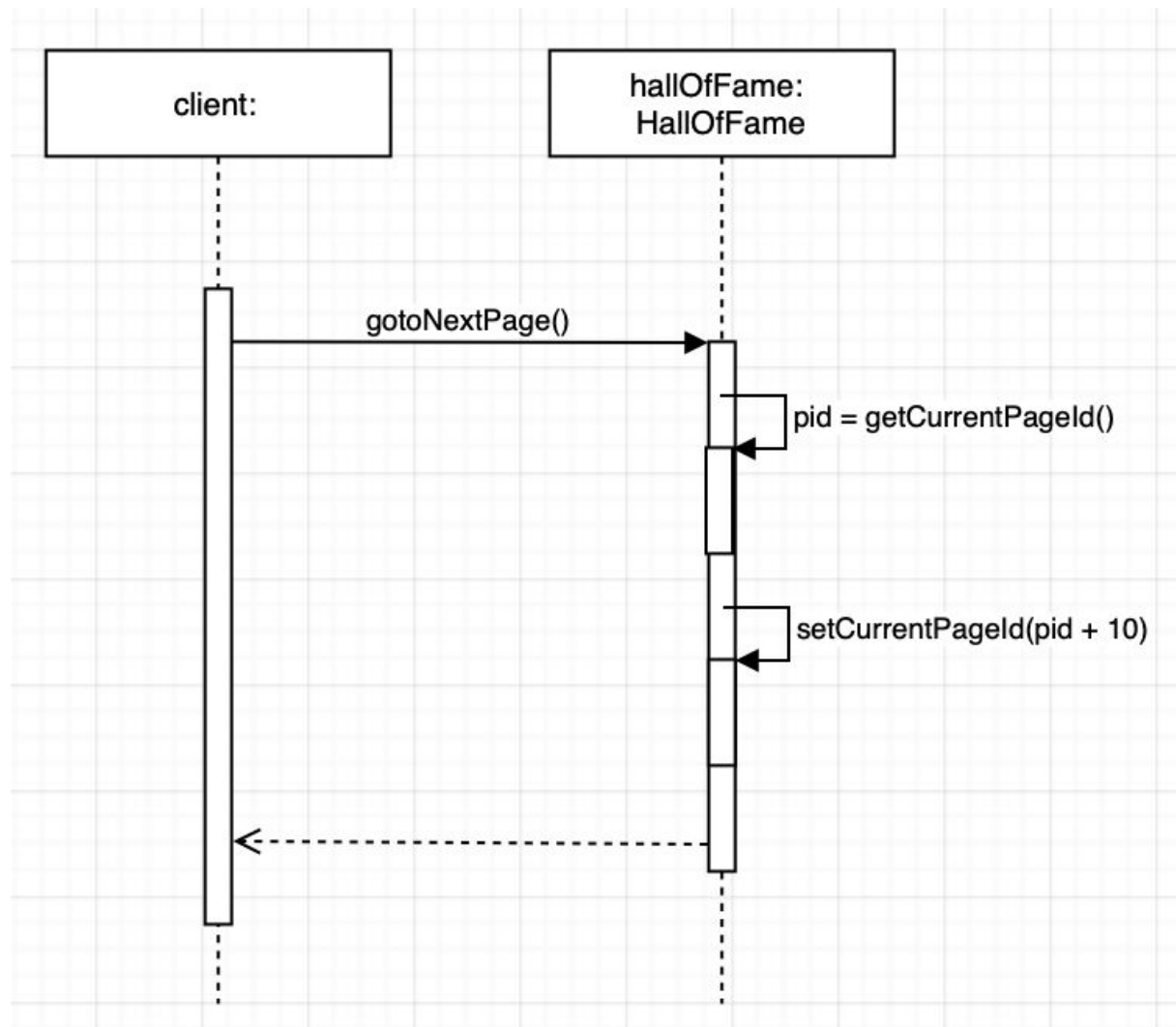


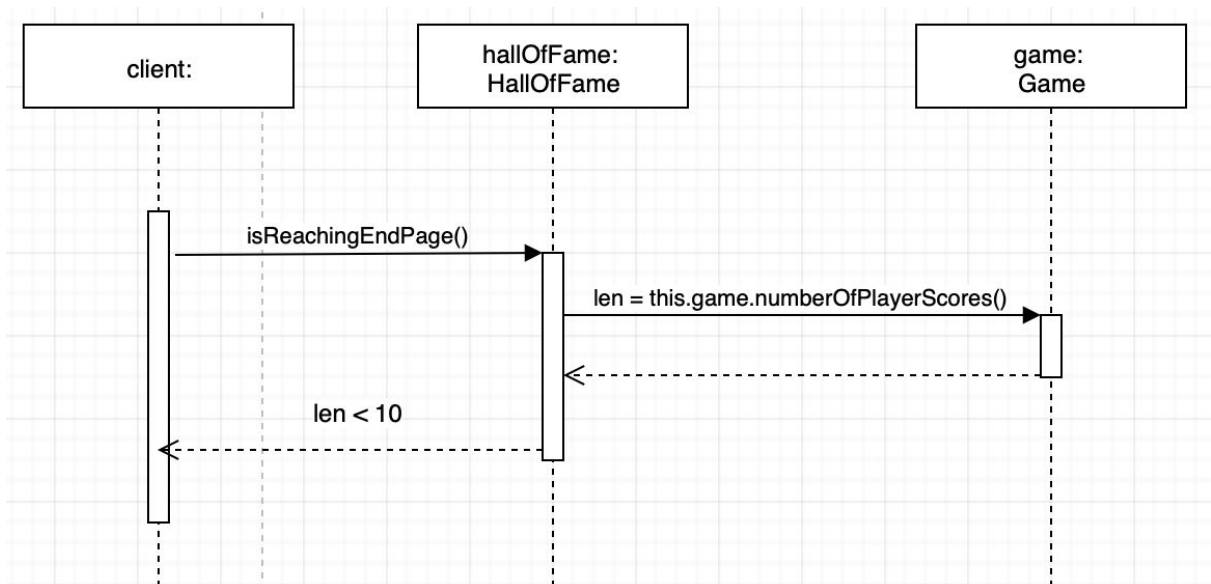
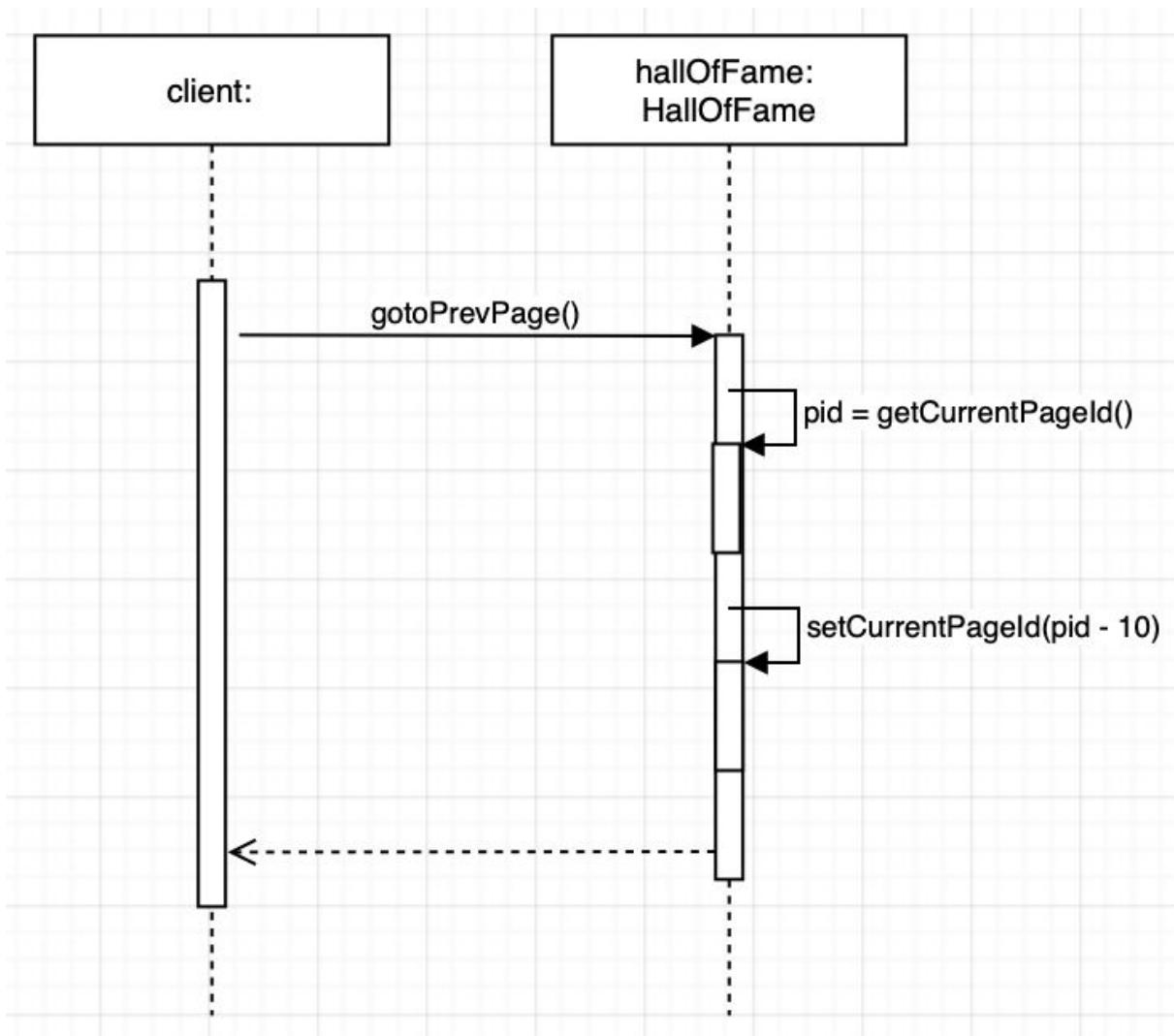


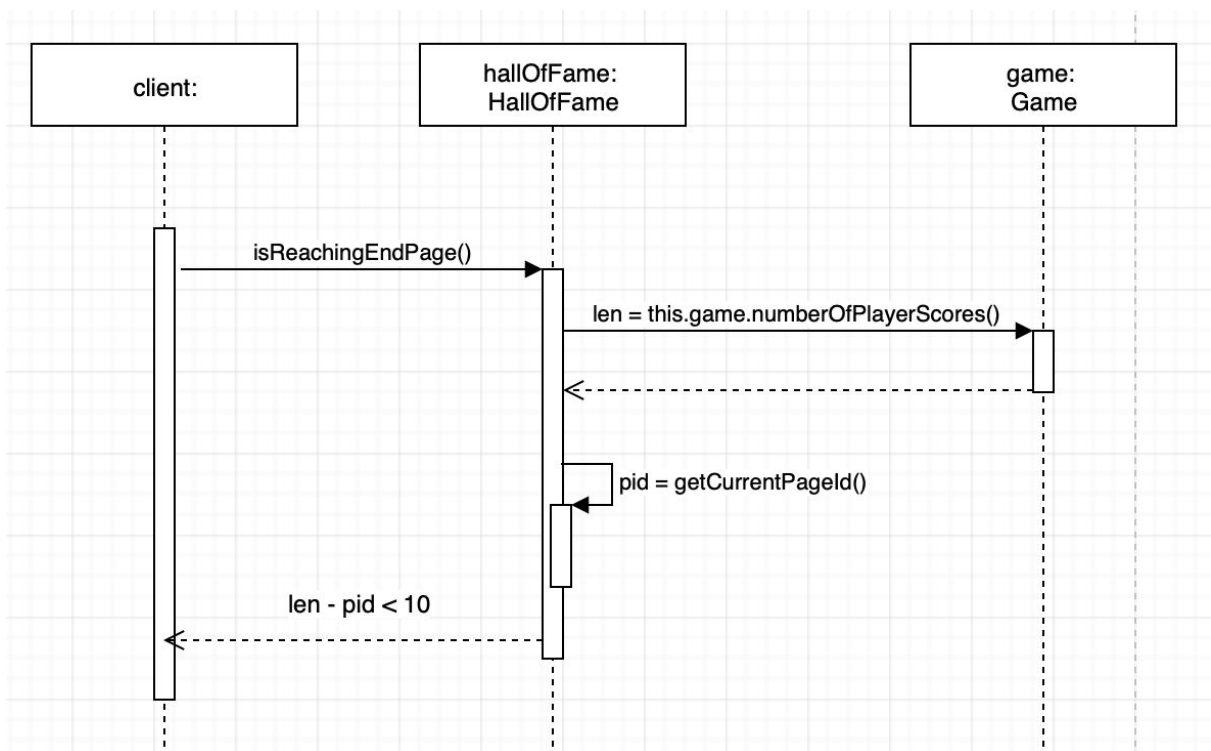
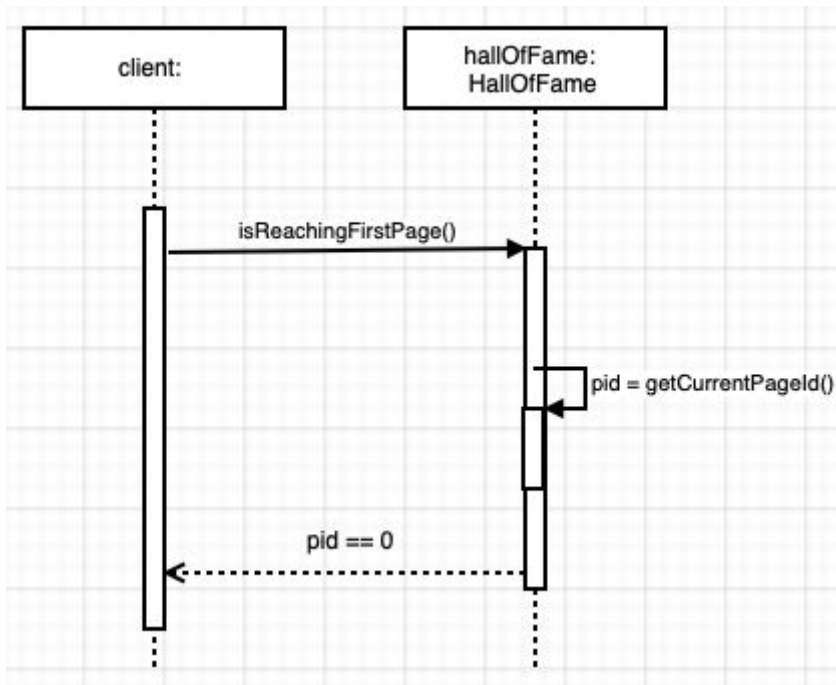


Validation check: check if hall of fame is null.







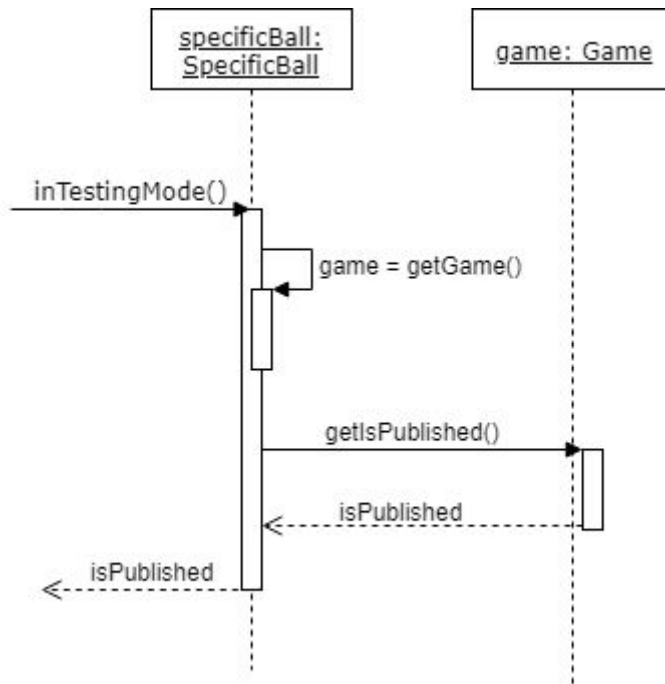


## Section 7: Test game (Elie Ruban)

### Guard Method

private boolean inTestingMode();

### Sequence Diagram



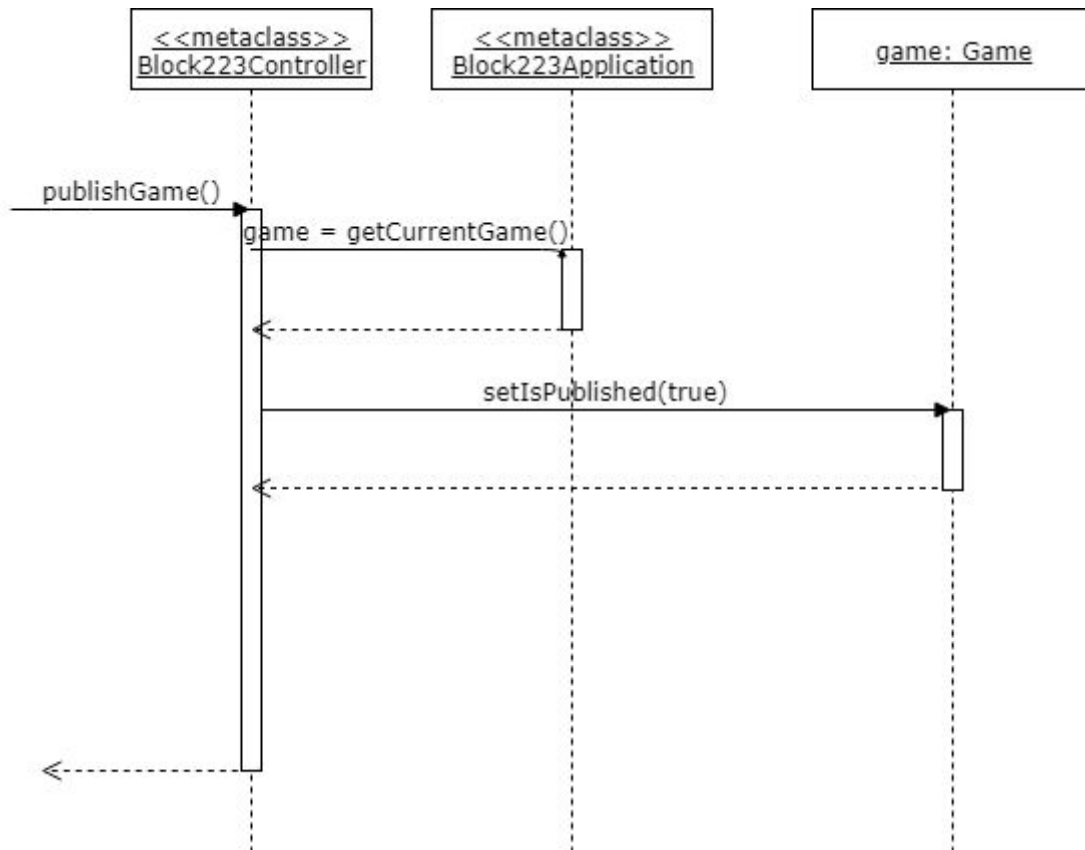


## Section 8: Publish game (Elie Ruban)

Modifier Controller Interface

public void publishGame()

Sequence Diagram



## Section 9: Move Paddle (Everyone)

### Modifier Controller Interface

```
public void movePaddle(char c)
```

### Sequence Diagram

