

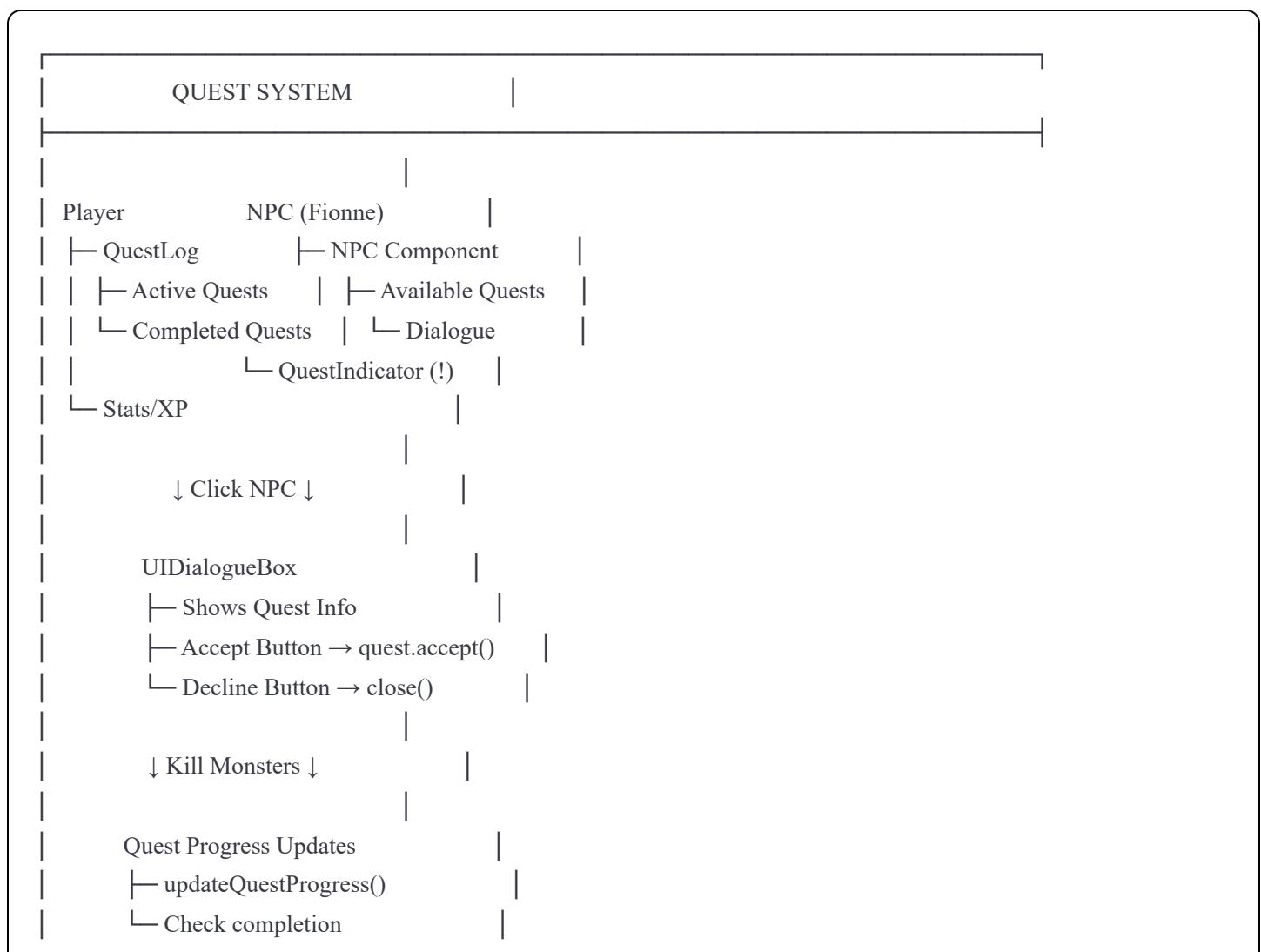
🎮 Quest System - Complete Implementation Guide

📋 Overview

The quest system includes:

- **Quest** class - Tracks objectives, rewards, and status
 - **NPC component** - Handles dialogue and quest offers
 - **QuestLog** component - Tracks player's active/completed quests
 - **UIDialogueBox** - Beautiful dialogue UI with Accept/Decline buttons
 - **QuestIndicator** - Shows ! or ? above NPCs
 - **Fionne NPC** - Sample quest giver with "Goblin Slayer" quest
-

🏗 Architecture



```
↓ Return to NPC (?) ↓  
|  
Claim Rewards & Complete Quest
```

🎯 How It Works

1. Fionne NPC Creation

In `(GameState.initializeWorld()`:

```
java  
  
Entity fionne = EntityFactory.createFionne(10 * 64, 5 * 64);  
entities.add(fionne);
```

Fionne is created with:

- **Quest:** "Goblin Slayer" - Kill 5 Goblins
- **Rewards:** 150 XP, 50 Gold, Potion
- **Dialogue:** Custom greeting/farewell messages

2. Player Clicks Fionne

```
Player clicks NPC → Engine.handleNPCClick()  
↓  
Check range → NPC.isPlayerInRange()  
↓  
Check quest status:  
• Quest completed? → Show "Quest Complete" dialogue  
• Quest active? → Show "Quest Progress" dialogue  
• Quest available? → Show "Quest Offer" dialogue  
• No quests? → Show greeting dialogue
```

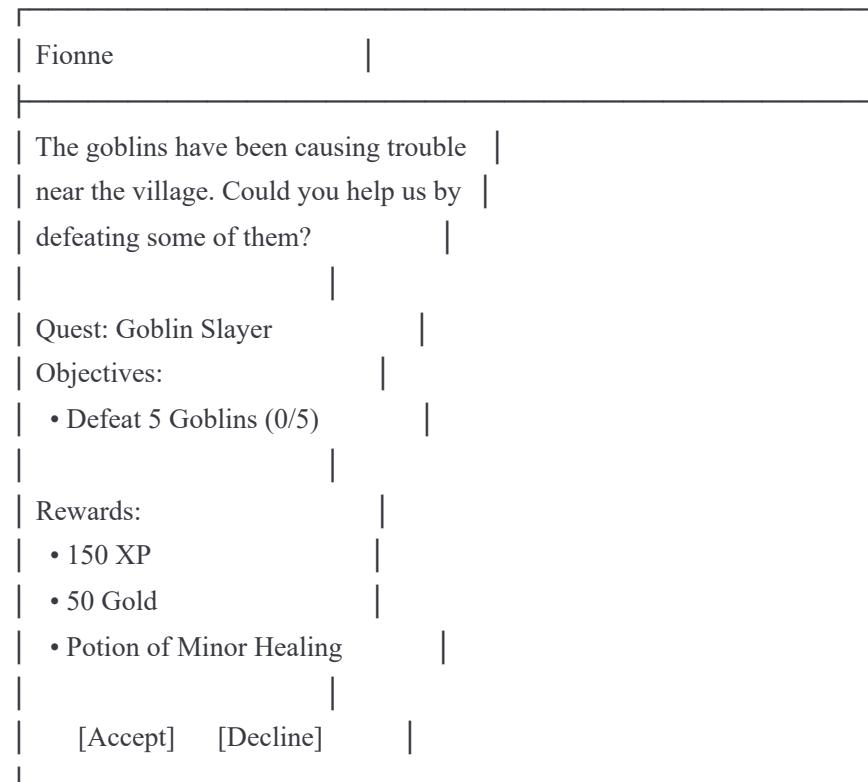
3. Quest Offer Dialogue

When clicking Fionne (who has an available quest):

```
UIDialogueBox.showQuestOffer("Fionne", goblinSlayerQuest)
```

↓

Displays:



4. Player Accepts Quest

Player clicks "Accept"

↓

```
UIManager.handleQuestAccept()
```

↓

```
quest.accept() → status = ACTIVE
```

↓

```
questLog.addQuest(quest)
```

↓

Dialogue closes

↓

Quest indicator changes: ! → ...

Console Output:

Quest accepted: Goblin Slayer
Quest added to log: Goblin Slayer

5. Player Kills Goblins

```
Player kills Goblin
↓
GameLogic.handleMonsterDeath()
↓
GameLogic.updateQuestProgress()
↓
questLog.updateQuestProgress("kill_goblins", 1)
↓
Quest checks objectives
↓
All complete? → quest.status = COMPLETED
```

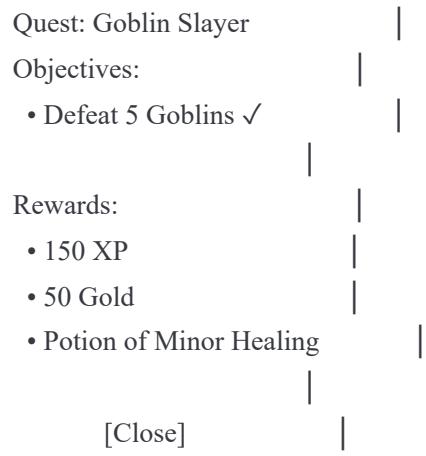
Console Output:

```
Goblin Lv1 TRASH has died!
→ XP Reward: 25
Quest progress: Goblin Slayer - Defeat 5 Goblins
Objective complete: Defeat 5 Goblins
Quest completed: Goblin Slayer
```

6. Return to Fionne (Quest Complete)

```
Player clicks Fionne
↓
NPC has completed quest → Show completion dialogue
```

Fionne		
Amazing work! The village is safer		
thanks to you. Here's your reward.		



Click "Close":

```

UIManager.handleDialogueClose()
↓
quest.claimRewards(player)
↓
Award XP (may level up!)
Award gold
Award items
↓
Dialogue closes
↓
Quest indicator disappears
  
```

● Visual Indicators

Quest Indicator States

Symbol	Color	Meaning
!	Gold	Quest available
?	Gold	Quest complete - return to NPC
...	Gray	Quest in progress
(none)	-	No quests

The indicator **bounces** above the NPC's head with a smooth animation.

Creating Custom Quests

Example: Create a Collection Quest

```
java
```

```

// In EntityFactory or wherever you create NPCs:

public static Entity createMerchantNPC(float x, float y) {
    Entity merchant = createNPC("merchant", "Merchant Bob", x, y);
    NPC npcComponent = merchant.getComponent(NPC.class);

    // Create collection quest
    Quest collectQuest = new Quest(
        "collect_hearts",
        "Herb Gathering",
        "I need 10 healing herbs for my potions. Can you gather them?",
        Quest.QuestType.COLLECT
    );

    // Add objective
    collectQuest.addObjective(new QuestObjective(
        "collect_healing_hearts",
        "Gather 10 Healing Herbs",
        10
    ));

    // Set rewards
    collectQuest.setExpReward(100);
    collectQuest.setGoldReward(75);
    collectQuest.addItemReward("Health Potion x3");

    // Set dialogue
    collectQuest.setAcceptDialogue("Great! Look for herbs near the forest.");
    collectQuest.setProgressDialogue("Still looking for those herbs?");
    collectQuest.setCompleteDialogue("Perfect! These will make excellent potions.");

    // Add to NPC
    npcComponent.addQuest(collectQuest);

    return merchant;
}

```

Quest Types

The `(Quest.QuestType)` enum supports:

- **KILL** - Kill X monsters
- **COLLECT** - Gather X items
- **TALK** - Speak to NPC
- **ESCORT** - Protect/guide NPC
- **EXPLORE** - Reach location
- **DELIVERY** - Deliver item to NPC

(Currently only **KILL** is fully implemented)

🎮 Testing the Quest System

Step 1: Start Game

Player spawns at (8, 5)
Fionne spawns at (10, 5) with "!" indicator

Step 2: Click Fionne

Press left-click on Fionne
→ Dialogue box appears with quest offer

Step 3: Accept Quest

Click "Accept" button
→ Quest added to log
→ Indicator changes to "..."

Step 4: Kill Goblins

Kill goblins in the area
→ Console shows quest progress (1/5, 2/5, etc.)
→ After 5th kill: "Quest completed!"

Step 5: Return to Fionne

Click Fionne again

- Indicator changed to "?"
 - Completion dialogue appears
 - Click "Close" to claim rewards
 - Get 150 XP (may level up!)
-

🔍 Console Output Example

Fionne NPC created at (10, 5)

Player clicked NPC: Fionne

Quest accepted: Goblin Slayer

Quest added to log: Goblin Slayer

Goblin Lv1 TRASH has died!

Quest progress: Goblin Slayer - Defeat 5 Goblins (1/5)

Goblin Lv1 TRASH has died!

Quest progress: Goblin Slayer - Defeat 5 Goblins (2/5)

...

Goblin Lv1 TRASH has died!

Quest progress: Goblin Slayer - Defeat 5 Goblins (5/5)

Objective complete: Defeat 5 Goblins

Quest completed: Goblin Slayer

Gained 150 XP from quest!

Gained 50 gold from quest!

Received item: Potion of Minor Healing

Quest rewards claimed!

🚀 Next Steps

Features to Add:

1. **Quest Log UI** - View all active quests
2. **Multiple Objectives** - Quests with several tasks
3. **Quest Chains** - Quests that unlock other quests

4. **Item Collection** - Track collected items
 5. **Escort Quests** - NPC following logic
 6. **Timed Quests** - Complete within time limit
 7. **Quest Rewards UI** - Show rewards being awarded
 8. **Quest Markers** - Show locations on minimap
-

Files Modified/Created

New Files:

-  `Quest.java` - Quest system
-  `QuestObjective.java` - Quest objectives
-  `NPC.java` - NPC component
-  `QuestLog.java` - Player quest tracking
-  `UIDialogueBox.java` - Dialogue UI
-  `QuestIndicator.java` - Visual indicator

Modified Files:

-  `EntityFactory.java` - Added `createNPC()` and `createFionne()`
 -  `Engine.java` - Added NPC interaction
 -  `GameLogic.java` - Added quest progress tracking
 -  `GameState.java` - Added Fionne to world
 -  `UIManager.java` - Added dialogue box support
 -  `Renderer.java` - Added quest indicator rendering
-

Summary

You now have a complete quest system with:

-  NPC dialogue boxes
-  Quest acceptance/decline

- Quest progress tracking
- Visual indicators (! and ?)
- Reward system
- Sample quest: "Goblin Slayer"

Fionne is waiting for you at tile (10, 5)!