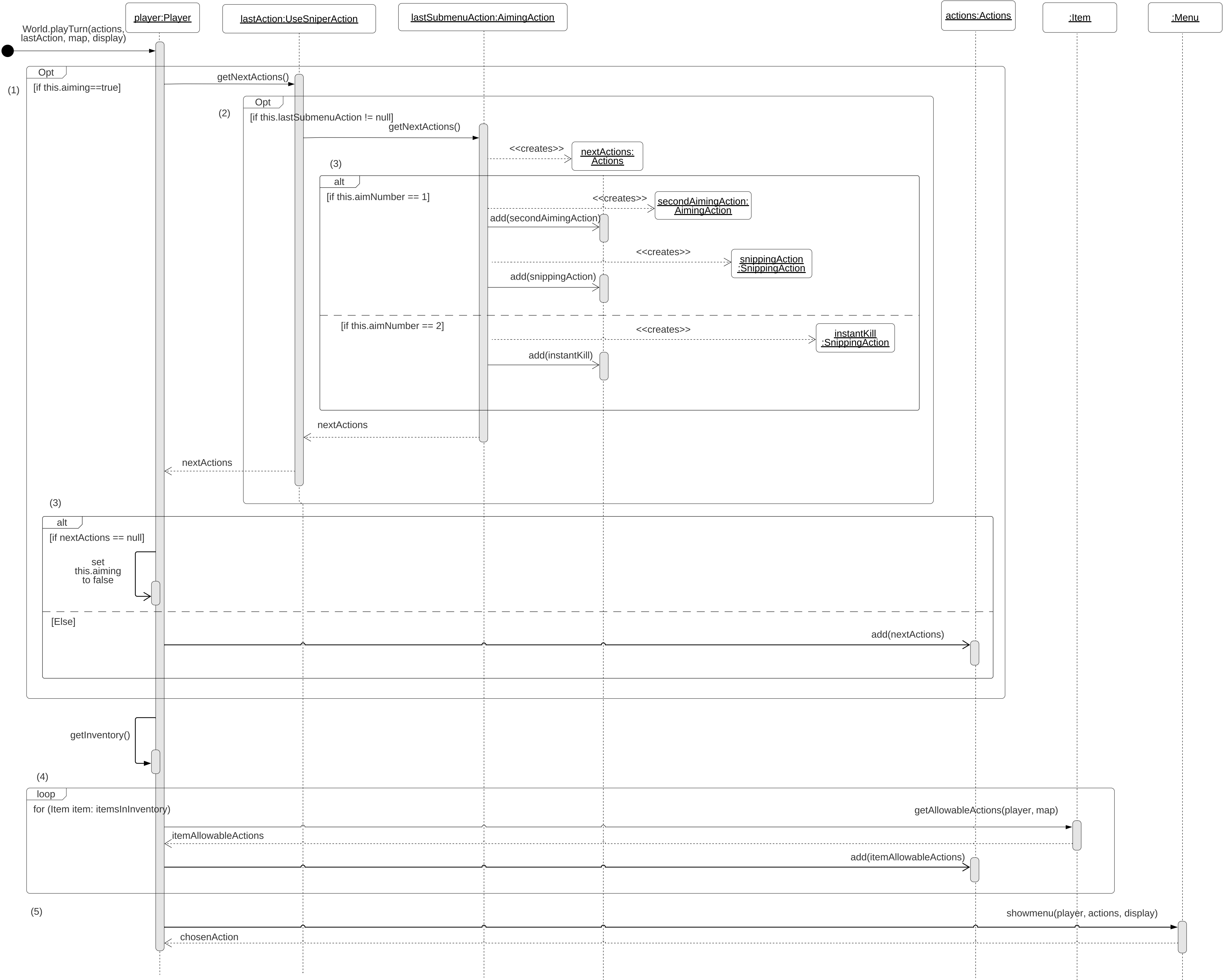


Sequence diagram 3 Shooting And Aiming Using Sniper Rifle

Scenario: The player used a sniper rifle with bullets in his inventory to aim at a target for the first time in previous turn. The player does not lose concentration at the target during the aiming process. The world is now running for second turn and the player's playTurn method is called.



(1) In this scenario, the player perform UseSniperAction in previous turn and execute the AimingAction chosen from a submenu. The concentration to the target is not lost, thus this.aiming is true.

(2) By calling the lastAction.getNextActions(), this method will check the UseSniperAction class attribute named lastSubmenuAction which keeps track of the action chosen from the submenu created from the UseSniperAction in previous turn. If the lastSubmenuAction is not null, the UseSniperAction will call the getNextActions() of this lastSubmenuAction and return the Actions returned from the lastSubmenuAction.getNextActions(). The lastAction.getNextActions() may return null if its class attribute lastSubmenuAction is null or the result from lastSubMenuAction.getNextAction() is null. In this case, the lastSubmenuAction in UseSniperAction is AimingAction and the getNextActions() of this AimingAction is called. The aimNumber recorded in the AimingAction is 1, thus a list consisting of an AimingAction and SnippingAction will be returned into lastAction.getNextActions() and to player.playTurn() to be added into actions list.

(3) By default, all Action other than UseSniperAction will return null from getNextActions methods. Thus, if the Player.aiming is True but the lastAction.getNextActions() returns null, we know that the player performed other action in previous round while he is aiming, thus he has lost concentration at its target. Therefore, the player.aiming is set to false so that the player has to use the sniper rifle again and choose a target if he wants to perform aiming or sniping at a target. If the Player.aiming is False, this indicates that the player either did not aim any target in previous turn or the player lost his target as he was being hurt during the aiming process.

(4) If the player has a sniper rifle with bullets in his inventory and is not aiming at any target, a UseSniperAction will be returned from the SniperRifle object and added into the actions list which will be passed into menu and can be chosen by player to set a target and decide to perform aiming or sniping at the target.

(5) The method calling for HarvestAction and QuitGameAction is excluded from this sequence diagram to avoid extra complexity.