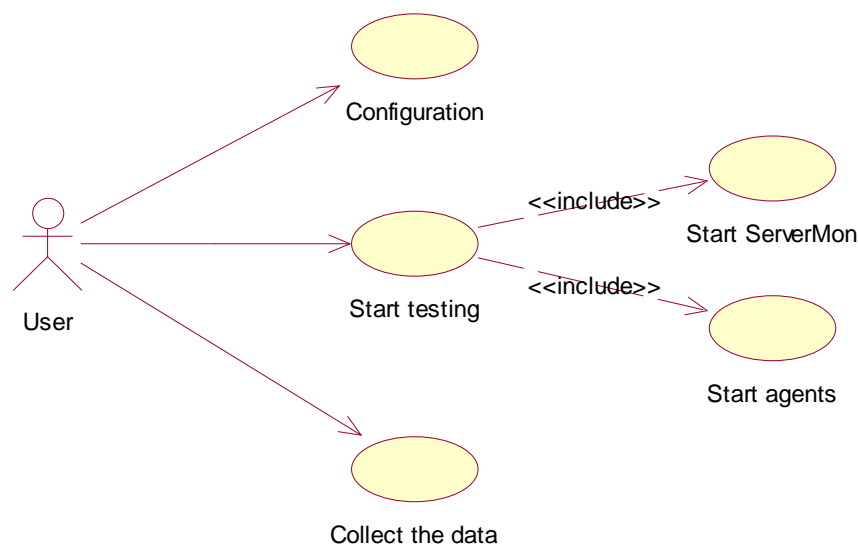# Requirement analysis of Bench4Q-rm

The topic we participate in OW2 Open Source Contest 2010 is 38. Implement server-side resource monitor in Bench4Q and 39. Implement on-line book store in Bench4Q by Servlet/EJB3.

Use Case Diagram

Bench4Q-rm interacts with users in three different ways. Firstly, users could do some configurations about the Bench4Q-rm, such as the IP addresses of database and web application servers. Secondly, you can start the testing after you make everything already which means start the agents and the ServerMon simultaneously. In the end, collect the result of the whole test from the agents and ServerMon.

Declaration of the Corresponding Module

User
User is the main actor. Bench4Q aims to help users to test the performance of servers and the Bench4Q-rm can provide more information about the servers such as memory usage.

Explanation about each use case in the diagram

Configuration
Name: configuration.

Participant: User

Description: Users can do some configurations about Bench4Q. Users can choose to monitor either of the servers (web applications and database servers). What's more, users must check every parameter to make sure the whole testing process under control.

Precondition: None.

Post-condition: None.

Start testing

Name: Start testing

Participant: User

Description: This is the key function of Bench4Q-rm. Users can start the test after setting the parameters. The moment you press the start button, ServerMon and agents will be started simultaneously.

Precondition: None.

Post-condition: None.

Start the agents

Name: Start the agents

Participant: User

Description: This is one type of start after users press the start button. The Bench4Q will trigger the agents to access the SUT.

Precondition: None

Post-condition; None

Start ServerMon

Name: Start ServerMon

Participant: User

Description: This is the other type of start after users press the start button. The Bench4Q will trigger the ServerMon to record the information of the servers.

Precondition: None

Post-condition: None

Collect the result

Name: Collect the result

Participant: User

Description: This is the final step when users will get the results about the servers such as memory usage. The whole results will be recorded in several chart and presented to users.

Precondition: None

Post-condition: None