Scaling a web service

On Google App Engine (Assignment 8):

Create a web service that allows a user to login, and upload pictures, with comments. Multiple users may use this service, and upload their pictures, comments and see others pictures. Users should be able to remove their pictures. Use a NoSQL database for performance.
You should restrict picture sizes and limit number of pictures per user.

Scaling (Assignment 9):

On App Engine, allow multiple users to use the service simultaneously.
Measure the time taken for components (Web services, database, program logic, network)

Use jmeter (or similar) to stress test and validate your analysis.