

A Web-based Adventure Game

Quest - Spring 2013

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Introduction

- [This is an in-progress semester project for CSC 435, Web Services.
- [It is an adventure game, somewhat inspired by The Legend of Zelda (1986).
- [Emphasis on world building and exploration.
- [Runs on the server, not in the client's browser.

Languages / Tools

— [Primarily done in Java EE6

— [Client side relies on HTML and JavaScript

— [JavaScript listens for specific keys

— [JQuery (JavaScript library) used to send post requests to a servlet

— [World (geography) populated through XML

Languages / Tools (Part2)

— [Graphics generated using Scalable Vector Graphics (SVG)

— [SVG2D “library”

— [Simple Animation

Limitations and Constraints

— [Request / response

— [Turn-based games

— [Solution: JQuery timer (automatic post requests)

— [2 JSPs: game vs. dungeon

— [No game engines

Architecture

— [The game is a session-scoped stateful bean (model)

— [There is also a web service (stateless bean) which handles account information

— [The client calls the bean methods through servlets (control)

— [The result of a player's action is returned to the JSP, and is embedded in an HTML element (view)

Consuming Web Services

— [There are variations of the world XML documents for different weather (snowing, raining, default)

— [When a session is associated with the game, it will get the current weather in the player's location from an external web service (to be implemented for the last assignment)

— [Loads the correct version of the world

— [There are dungeons only accessible in certain conditions

About the Game:

— [25 “regions” in the main part of the world

— [5 dungeons

— [dungeons have “enemies” to fight

— [to access certain dungeon you must be at the right place in the right weather conditions, and use the right tools

The Game

— [demo