SPM4332: CD-ROM BASED MULTIMEDIA DEVELOPMENT

COURSEWARE: TESTING & EVALUATION

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Introduction

- Testing and Evaluating your own multimedia courseware can help you spot problems and make appropriate changes.

- It helps to have somebody else evaluate and test the courseware for you, but you can probably gain some benefit even if you go through the procedure yourself.

Testing vs Evaluation

- Courseware Evaluation vs Courseware Testing ?
- Discuss in a group of 3

MULTIMEDIA COURSEWARE:
TESTING

What is Testing

- Testing means examining the project performance according to specifications that have been agreed.

- This will include the robustness of the code, the structure and content, the interface, the interactivity, the look and the feel.

What is Testing

- The subject of testing is complicated because there are so many types that can be applied at every stage of a project.

- Also, the mix of disciplines in multimedia means that different approaches to testing might be employed.

Types of Errors

- When documenting errors and defects found through testing, it is helpful to categorize them according to one of three types of problems:

1. *design flaws* : user interface problems or suggestions, such as proposed new features, relabeling buttons, and screen layouts

Types of Errors

2. *content errors*: inaccuracies, data with formatting problems, or data of poor quality in some other respect (photo image quality, text misspellings)

3. *Software/system defects*: commonly called 'bugs,' these are technical problems encountered when trying to run and operate the site

Stages/Components of Testing

- Testing stages or components are as follows:
  - **Alpha testing**
  - **Beta testing**

  - **Gold Version**

Types of Testing

- Several kinds of testing are appropriate for multimedia courseware, including the following:

    - **content testing**

    - **functionality testing (i.e., unit, integration,, regression, compatibility)**

    - **usability testing**

    - **layout testing**

    - **link testing**

Types of Testing

- Functionality Testing

  Refers to the testing of programmatic features and is most appropriate for sites of higher complexity that contain features such as database access, dynamic page generation, and other dynamic/interactive elements - namely features that require actual programming (rather than just a static screen).

Types of Testing

- Layout Testing

   Refers to the ability of the courseware page layout to accommodate various user operating system and hardware display configurations.

Usability Testing

- Usability Testing for multimedia courseware:
  - Usability is a quality attribute that assesses how easy user interfaces are to use.
  - The word "usability" also refers to methods for improving ease-of-use during the design process.

Usability Testing

- Usability is defined by five quality components:

  – Learnability: How easy is it for users to accomplish basic tasks the first time they encounter the design?

  – Efficiency: Once users have learned the design, how quickly can they perform tasks?

  – Memorability: When users return to the design after a period of not using it, how easily can they reestablish proficiency?

  – Errors: How many errors do users make, how severe are these errors, and how easily can they recover from the errors?

  – Satisfaction: How pleasant is it to use the design?

Thank You !

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