Testing Site Personalization, Unpacking Personalized Sites Through Emulation

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Introduction

- 7 years as senior software quality analyst at Intel
- Involved in software testing strategies and processes
- Worked on sales and marketing applications
- Focus on improving and refining QA processes and standards
- Got PMP and CSTE in 2006
Site Personalization

- Dynamically insert and customize content
- Based on user’s implicit behavior patterns and preferences
- Deliver personalized content, promotions and experiences
- Multiple versions of the same page
- Very popular with e-business and marketing sites
Unpacking Personalized Sites

- Types of personalization covered
  - Contextual Personalization
  - Profile-Driven Personalization
  - Personalization by eNurturing and Cultivation
  - Score-Driven Personalization
Cookies in Personalization

- Manages personalization variables
- Cookie on the client side drives the user experience
- Contains all the user preferences information
- Read by the server for each session
User Context and Initialization

- Setting the user context and variables
- Initialization in implicit profiling
  - Personalization engine sets the variables based on user’s behavior and actions
- Initialization in explicit profiling
  - User explicitly states his or her preferences
- Triggers
  - Used to re-set personalization variables
Example: Personalized Module

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Example: Personalized Module

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Testing Challenges

- Testing can be time consuming and laborious
- Implicit Profiling
  - It may take many days of testing to simulate all possible scenarios
  - Multiple user actions and behaviors that the testers need to simulate
  - Combination of search keywords and product views can be time consuming
- Explicit Profiling
  - The testers need to update the user settings for each combination
Emulation as a Testing Technique

- Manipulation of Cookies on the Client
- Setting Personalization Variables using the Tool
- Limitations of Emulation Approach
Conclusion

- Quick access to different personalized version of the page/URL
- No effort of recreating the user behavior and actions
- Bypasses the initialization process
- Gives the testers quick access to personalized content for each profile
- This approach saved time and enabled QA team to complete testing in one third of time
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