

Subject web application: check24online

Check24online is a small web application, containing one java servlet. It allows users to enter four integer values between 1 and 24 inclusive. It will return all possible expressions using the four operators +, -, *, and / that use each value exactly once and that have the result 24. This is similar to the basic game of 24.

Specific requirements

Functional requirements

Use Case Name: check24online
Use Case ID: check24online-1
Actors: web user
Brief Description: The system accepts four integer values between 1 and 24 inclusive and return all expression using the four operators +, -, *, and / that use each value exactly once and that have the result 24.
Pre-Conditions: None
Main Flow of Events: <ol style="list-style-type: none">1. User enters four integer values between 1 and 24 inclusive.2. User presses the 'Check 24' button.3. The system displays all expressions using the four operators +, -, *, and / that use each value exactly once and that have the result 24.
Post-Conditions: The system displays all expressions that have the result 24.
Alternative Flows and Exceptions: Alternative 1, Insert Point Step 1 If the web user enters one or more non-numeric values, the system displays an error message. Alternative 2, Insert Point Step 1 If the web user does not enter all four values, the system displays an error message. Alternative 3, Insert Point Step 2 If the web user selects the 'Clear Form' button, the system resets the form and clears all previous expressions.
Assumptions: None.