# Fitness Freak calculates BMI

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| **Use Case ID: UC-01**  **Use Case Name:**Fitness Freak calculates BMI | |
| **Importance Level:** | High |
| **Stakeholders:** | Fitness Freaks, Developers |
| **Story:** | As a Fitness Freak, I want to calculate my BMI, so that I can stay fit. |
| **Quality Requirements:** | The BMI should be displayed in less than 1 second. |
| **Pre-Conditions:** | *None* |
| **Post-Conditions:** | I’m viewing my BMI information. |
| **Relationships:** | **None** |
| **Trigger:** | **Trigger Type:** External  *I navigate my browser to the BMI page.* |
| **Normal Flow of Events:** | 1. The BMI Calculator displays the BMI calculation page    1. Weight defaults to 0    2. Height defaults to 1 2. I enter my weight in pounds    1. 0 <= weight <= 2000 3. I enter my height in inches    1. 1 <= height <= 120 4. I issue the submit command 5. The BMI Calculator displays my BMI information [See exceptions]    1. BMI is a number formatted to 1 decimal place    2. BMI message is one of: optimal, underweight, overweight |
| **Sub-flows:** | *None* |
| **Alternative/Exception flows:** | **Exceptions**  **Weight invalid**: If the weight is outside the specified range, then “Weight is invalid” is displayed next to the weight input.  **Height invalid:** If the height is outside the specified range, then “Height is invalid” is displayed next to the height input. |

# Scenarios

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| **Scenario:** | **Optimal BMI** | | |
| Setup: | * Connected to internet * Open new browser instance | | |
| Date/Time: |  | | |
| **Step** | **Action** | **Expected Response** | **Pass/Fail (Actual Response)** |
| 1 | Open new browser instance and then navigate to http://einstein.etsu.edu/~roachj/bmi/ | The BMI calculator page   * Weight defaults to 0 * Height defaults to 1 |  |
| 2 | Enter 120 in the weight input box | 120 displayed |  |
| 3 | Enter 66 in the height input box | 66 displayed |  |
| 4 | Click the Submit button | BMI:19.4  BMI message:optimal |  |
| Teardown: | * Close the browser | | |

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| **Scenario:** | **Underweight BMI** | | |
| Setup: | * Connected to internet * Open new browser instance | | |
| Date/Time |  | | |
| **Step** | **Action** | **Expected Response** | **Pass/Fail (Actual Response)** |
| 1 | Open new browser instance and then navigate to http://einstein.etsu.edu/~roachj/bmi/ | The BMI calculator page   * Weight defaults to 0 * Height defaults to 1 |  |
| 2 | Enter 90 in the weight input box | 90 displayed |  |
| 3 | Enter 66 in the height input box | 66 displayed |  |
| 4 | Click the Submit button | BMI:14.5  BMI message:underweight |  |
| Teardown: | * Close the browser | | |

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| **Scenario:** | **Overweight BMI** | | |
| Setup: | * Connected to internet * Open new browser instance | | |
| Date/Time: |  | | |
| **Step** | **Action** | **Expected Response** | **Pass/Fail (Actual Response)** |
| 1 | Open new browser instance and then navigate to http://einstein.etsu.edu/~roachj/bmi/ | The BMI calculator page   * Weight defaults to 0 * Height defaults to 1 |  |
| 2 | Enter 200 in the weight input box | 200 displayed |  |
| 3 | Enter 66 in the height input box | 66 displayed |  |
| 4 | Click the Submit button | BMI:32.3  BMI message:overweight |  |
| Teardown: | * Close the browser | | |

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| --- | --- | --- | --- |
| **Scenario:** | **Invalid weight** | | |
| Setup: | * Connected to internet * Open new browser instance | | |
| Date/Time: |  | | |
| **Step** | **Action** | **Expected Response** | **Pass/Fail (Actual Response)** |
| 1 | Open new browser instance and then navigate to http://einstein.etsu.edu/~roachj/bmi/ | The BMI calculator page   * Weight defaults to 0 * Height defaults to 1 |  |
| 2 | Enter -1 in the weight input box | -1 displayed |  |
| 4 | Click the Submit button | “Weight is invalid” is displayed next to the weight input box |  |
| Teardown: | * Close the browser | | |

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| **Scenario:** | **Invalid height** | | |
| Setup: | * Connected to internet * Open new browser instance | | |
| Date/Time: |  | | |
| **Step** | **Action** | **Expected Response** | **Pass/Fail (Actual Response)** |
| 1 | Open new browser instance and then navigate to http://einstein.etsu.edu/~roachj/bmi/ | The BMI calculator page   * Weight defaults to 0 * Height defaults to 1 |  |
| 2 | Enter -1 in the height input box | -1 displayed |  |
| 4 | Click the Submit button | “Height is invalid” is displayed next to the height input box |  |
| Teardown: | * Close the browser | | |