# Homework: Test Levels and Test Types

## Unit Testing in the Real Life: Testing a Battery

|  |  |
| --- | --- |
| **Test #1** | Check the battery size (height + diameter). Does it comply with the “AA” size standard |
| **Test #2** | Check the physical condition of the battery: are there any damages. Does it comply with the “AA” size standard |
| **Test #3** | Check the labels on the battery. Are they accurate with the “AA” size standard |
| **Test #4** | Check the battery voltage: measure the voltage using a digital multimeter. |
| **Test #5** | Put the batteries into a flashlight (or other electric device) and check if it works. |

## Unit Testing in the Real Life: Testing a Light Bulb

|  |  |
| --- | --- |
| **Test #1** | Check the physical condition of the 1.5V light bulb Е10 the glass part |
| **Test #2** | Check the physical condition of the 1.5V light bulb Е10 the metal part |
| **Test #3** | Check the physical condition of the 1.5V light bulb Е10 the internal lightning part |
| **Test #4** | Check the 1.5V light bulb Е10: measure if the curcle can be closd using a digital multimeter. |
| **Test #5** | Check if 1.5V light bulb Е10 can fit to a flashlight |
| **Test #6** |  |
| **Test #7** |  |
| **Test #8** |  |
| **Test #9** |  |
| **Test #10** |  |

## Unit Testing in the Software World: Age Checker

|  |  |
| --- | --- |
| **Test #1** | AgeChecker(-5) 🡪 error |
| **Test #2** | AgeChecker(0) 🡪 child |
| **Test #3** | AgeChecker(5) 🡪 child |
| **Test #4** | AgeChecker(13) 🡪 teenager |
| **Test #5** | AgeChecker(19.5) 🡪 teenager |
| **Test #6** | AgeChecker(19.5) 🡪 teenager |
| **Test #7** | AgeChecker(20) 🡪 adult |
| **Test #8** | AgeChecker(64) 🡪 adult |
| **Test #9** | AgeChecker(65) 🡪 elder |
| **Test #10** | AgeChecker(150) 🡪 elder |
| **Test #11** | AgeChecker(151) 🡪 error |
| **Test #12** | AgeChecker(“ten”) 🡪 error |
| **Test #13** |  |
| **Test #14** |  |
| **Test #15** |  |
| **Test #16** |  |

## Unit Testing in the Software World: Income Checker

|  |  |
| --- | --- |
| **Test #1** | IncomeChecke (-5) 🡪 error |
| **Test #2** | IncomeChecke (0) 🡪 low |
| **Test #3** | IncomeChecke (999) 🡪 low |
| **Test #4** | IncomeChecke (1000) 🡪 mid |
| **Test #5** | ….. |

## Integration Testing in the Real Life: Lighting the Bulb

|  |  |
| --- | --- |
| **Test #1** | Connect the battery directly to the bulb with 1 wires. Check if it works |
| **Test #2** | Connect the battery directly to the bulb with 2 wire one way. Check if it works |
| **Test #3** | Connect the battery directly to the bulb with 2 wires other way . Check if it works |
| **Test #4** | Connect the battery directly to the bulb with 3 wires and key on, one way. Check if it works |
| **Test #5** | Connect the battery directly to the bulb with 3 wires and key on, other way. Check if it works |
| **Test #6** | Connect the battery directly to the bulb with 3 wires and key off. Check if it works |

## \* Integration Testing in the Software World: Ads

|  |  |
| --- | --- |
| **Test #1** |  |
| **Test #2** |  |
| **Test #3** |  |
| **Test #4** |  |
| **Test #5** |  |
| **Test #6** |  |
| **Test #7** |  |
| **Test #8** |  |

## \* Integration Testing in the Software World: Credit Risk

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | child | teenager | adult | elder | negative |
| low |  |  |  |  |  |
| mid |  |  |  |  |  |
| high |  |  |  |  |  |
| negative |  |  |  |  |  |

## System Testing in the Real Life: Flashlight

|  |  |
| --- | --- |
| **Test #1** | With the flashlight off, I press my thigh and the flashlight turns on |
| **Test #2** | With the flashlight on, I press my thigh and the flashlight turns off |
| **Test #3** | Open the flashlight, change the battery, close the flashlight |
| **Test #4** | Open the flashlight, change the bulb, close the flashlight |
| **Test #5** | Turn on the flashlight, leave for 1 week, check when the flashlight turns off |
| **Test #6** | ….. |
| **Test #7** |  |
| **Test #8** |  |
| **Test #9** |  |
| **Test #10** |  |

## System Testing in the Real Life: Digital Scale

|  |  |
| --- | --- |
| **Test #1** |  |
| **Test #2** |  |
| **Test #3** |  |
| **Test #4** |  |
| **Test #5** |  |
| **Test #6** |  |
| **Test #7** |  |
| **Test #8** |  |

## System Testing in the Software World: Number Calculator

|  |  |
| --- | --- |
| **Test #1** | 4/2 |
| **Test #2** | 5/2 |
| **Test #3** | 2/4 |
| **Test #4** | 2/0 |
| **Test #5** | 0/0 |
| **Test #6** | 0/0 |
| **Test #7** | ../0 |
| **Test #8** | 0/… |

## Acceptance Testing in the Real Life: Flashlight

|  |  |
| --- | --- |
| **Test #1** | With the flashlight off, I press the button 4 times and the flashlight should turns on |
| **Test #2** | Open the flashlight, change the battery, close the flashlight |
| **Test #3** |  |
| **Test #4** |  |
| **Test #5** |  |
| **Test #6** |  |

## Acceptance Testing in the Real Life: Digital Scale

|  |  |
| --- | --- |
| **Test #1** |  |
| **Test #2** |  |
| **Test #3** |  |
| **Test #4** |  |
| **Test #5** |  |
| **Test #6** |  |

## Acceptance Testing in the Software World: Number Calculator

|  |  |
| --- | --- |
| **Test #1** |  |
| **Test #2** |  |
| **Test #3** |  |

## Functional and Non-Functional Tests: Flashlight

## System Testing in the Real Life: Flashlight

|  |  |
| --- | --- |
| **Functional Tests** | **Non-Functional Tests** |
| With the flashlight off, I press my thigh and the flashlight turns on | Open the flashlight, change the bulb, close the flashlight |
| With the flashlight on, I press my thigh and the flashlight turns off | Turn on the flashlight, leave for 1 week, check when the flashlight turns off |
| Open the flashlight, change the battery, close the flashlight |  |
|  |  |

## Acceptance Testing in the Real Life: Flashlight

|  |  |
| --- | --- |
| **Functional Tests** | **Non-Functional Tests** |
| With the flashlight off, I press the button 4 times and the flashlight should turns on | Turn on the flashlight, leave for 1 week, check when the flashlight turns off |
| Open the flashlight, change the battery, close the flashlight |  |
|  |  |
|  |  |