Operational Specification Template

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| **Student** | 阙俊杰；任兵兵 | **Date** | 7/15/2015 |
| **Program** | Assignment7 | **Program #** | 7 |
| **Instructor** | 荣国平 | **Language** | Java |

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| **Scenario Number** | **1** | **User Objective** | To calculate three-variable multiple-regression | |
| **Scenario Objective** | | To illustrate operation of calculation | | |
| **Source** | **Step** | **Action** | | **Comments** |
| User | 1 | Enter 4 groups of numbers | |  |
| System | 2 | Analyze the input | | Create 4 Arraylists |
| System | 3 | Calculate 4 betas | |  |
| System | 4 | Calculate standard deviation | |  |
| System | 5 | Calculate range | |  |
| System | 6 | Calculate z and output | |  |
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Functional Specification Template

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| **Student** | | | 阙俊杰；任兵兵 | | **Date** | 7/15/2015 |
| **Program** | | | Assignment7 | | **Program #** | 7 |
| **Instructor** | | | 荣国平 | | **Language** | JAVA |
|  | | | | | | |
| **Class Name** | | Program5 | | | | |
| **Parent Class** | |  | | | | |
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| **Attributes** | | | | | | |
|  | **Declaration** | | | **Description** | | |
|  | num1,num2,num3,num4: ArrayList<double> | | | 4 columns of numbers | | |
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| **Items** | | | | | | |
|  | **Declaration** | | | **Description** | | |
|  | double[] calGauss(double[][] gauss) | | | Use Gauss method to calculate | | |
|  | double calStdDev7(ArrayList<Double> num) | | | Calculate standard deviation | | |
|  | double getRange(double avg) | | | Get range | | |
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Logic Specification Template

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| Student | 阙俊杰；任兵兵 | Date | 7/15/2015 |
| Program | Assignment7 | Program # | 7 |
| Instructor | 荣国平 | Language | Java |

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| **Design** | Operational Specification |
| **References** | Functional Specification |
|  | State Specification |
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| **Parameters** | num1,num2,num3,num4: ArrayList<double> |
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| Start by getting input |
| Get coefficients of every linear equation |
| Calculate every beta using Gauss method |
| Calculate standard deviation |
| Calculate range |
| Calculate z and output |
| End |
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