Functional Specification Template

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| **Student** | | | Hector Manuel Takami Flores | | Date | 7/04/2018 |
| **Program** | | | 7 | | Program # | 7 |
| **Instructor** | | | Adriana Bojorquez | | Language | Java |
|  | | | | | | |
| **Class Name** | | Correlacion | | | | |
| **Parent Class** | |  | | | | |
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|  | | | | | | |
| **Attributes** | | | | | | |
|  | **Declaration** | | | **Description** | | |
|  | Double[] wi | | | Arreglo que almacena datos wi | | |
|  | Double[] xi | | | Arreglo que almacena datos xi | | |
|  | Double[] yi | | | Arreglo que almacena datos yi | | |
|  | Double[] zi | | | Arreglo que almacena datos zi | | |
|  | Wk | | | Valor inicial wk | | |
|  | xk | | | Valor inicial xk | | |
|  | yk | | | Valor inicial yk | | |
|  | | | | | | |
| **Items** | | | | | | |
|  | **Declaration** | | | **Description** | | |
|  | public static double[] gaussian(double[][] matrix) | | | Recibe una matriz de arreglos y regresa un arreglo X que son parámetros beta | | |
|  | public static double calculateZ(double[] betas, double wk, double xk, double yk) | | | Sirve para calcular valores Z-K de los valores beta dados, regresa valor z\_k | | |
|  | public static double calculateRange(double[] betas, double[] wi, double[] xi, double[] yi, double[] zi,  double wk, double xk, double yk) | | | Se calcula la predicción el rango dado los parámetros beta | | |
|  | public static double mean(double[] numbers) | | | Calcula la media de un set de números reales | | |
|  | public static double sum(double[] numbers) | | | Hace la suma de un arreglo de números | | |
|  | public static double sumMultiply(double[] xNumbers, double[] yNumbers) | | | Calcula la suma de (xi\*yi) | | |
|  | public static double calculateX(double p, double errorRange, double dof) | | | Calcula el valor de X usando método integrate | | |
|  | public static double integrate(double x, double errorRange, double dof) | | | Calcula la integral usando tDistribution | | |
|  | public static double tDistribution(double x, double dof) | | | Calcula el valor de la función tDistribution F(x) | | |
|  | public static double gamma(double x) { | | | Calcula el valor de Gamma | | |