

JAVA-PROJ-02-15E218

```
import java.io.BufferedReader;
import java.io.FileReader;
import java.io.FileNotFoundException;
import java.io.IOException;

public class CorelationMatrix {
    public static void main(String[] args) throws IOException,FileNotFoundException {
        BufferedReader br = new BufferedReader(new FileReader("input.txt"));
        double arr[][];
        arr = new double[3][3];
        for (int i=0; i < 3; i++) {
            for (int j = 0;j < 3;j++) {
                arr[i][j] = Double.valueOf(br.readLine());
            }
        }
        double standardDeviation[][];
        standardDeviation = new double[3][3];
        for (int i=0; i < 3; i++) {
            for (int j = 0;j < 3;j++) {
                if (i == j) {
                    standardDeviation[i][j] = 1/Math.sqrt(arr[i][j]);
                }
            }
        }
        double result[][];
        result = new double[3][3];
        for (int i = 0; i < 3; i++) {
            for (int j = 0; j < 3; j++) {
                for (int k = 0; k < 3; k++) {
                    result[i][j] = result[i][j] + arr[i][k] * standardDeviation[k][j];
                }
            }
        }
        double result1[][];
        result1 = new double[3][3];
        for (int i = 0; i < 3; i++) {
            for (int j = 0; j < 3; j++) {
                for (int k = 0; k < 3; k++) {
                    result1[i][j] = result1[i][j] + result[i][k] * standardDeviation[k][j];
                }
            }
        }
        for (int i=0; i < 3; i++) {
            for (int j = 0;j < 3;j++) {
                System.out.print(result1[i][j] + " ");
            }
            System.out.println();
        }
    }
}
```