

## Argument – Why solution is ready to deploy?

### What makes the code ready to be deployed?

The solution developed, is considered to be ready to deploy, as it is satisfying the following set of characteristics:

- **Single class single responsibility:** Each of the class is having only a single responsibility to accomplish. A class holds all the required features that can take the problem, a step further, without creating confusion. Total 10 classes are used each holding its own functionality. For example: the customer class only holds a task of fetching the summary data of the customers from the database.
- **Addition new features:** New features can be added to the program when required, by creating sub classes and inheriting the properties of the parent class so that the functionality and properties considered by the parent are not disturbed.
- **Modularity:** The whole code is divided into several modules, each of it holding a single functionality which helps in understanding the workflow of the program easily. Also, some of the modules can be reused in other programs.
- **Reusability:** The Xml config class can be used by other programs for developing their own kind of xml file using the DOM parser.
- The ConnectToDB class can be used by other programs for connecting to their respective database and perform their own operations.
- **Memory Utilization:** Since, there is use of database, proper opening and closing is done so that the database is not running continuously on the backend and does not create a problem when multiple users are utilizing the same database.
- **Maintainability:** The exact required result is fetched from the database, so that, there is very less use of other data structures to store, access and fetch data. This decreases the maintainability of the code.
- **Readability:** Proper internal comments are added in the code, and required external documentation is provided so that, it will be understandable to anyone who wants to know the functionality of the program or who wants to change the existing code and add new features to it.
- **Verification:** Each of the feature once implemented is tested vigorously under all the circumstances. All the queries are tested on workbench initially until the exact outcome is fetched. Several validations are done so that code is error free.