

# Whitepaper on Software Factory



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## Introduction

This whitepaper bring about a new concept that could be used as a methodology in the software development life cycle.

The methodology Software Factory tries to incorporate the working of a manufacturing industry in the software industry wherein various phases of software development could be carried out in parallel in a bid to be able to create a platform wherein projects could be executed on a large scale with great amount of uniformity.

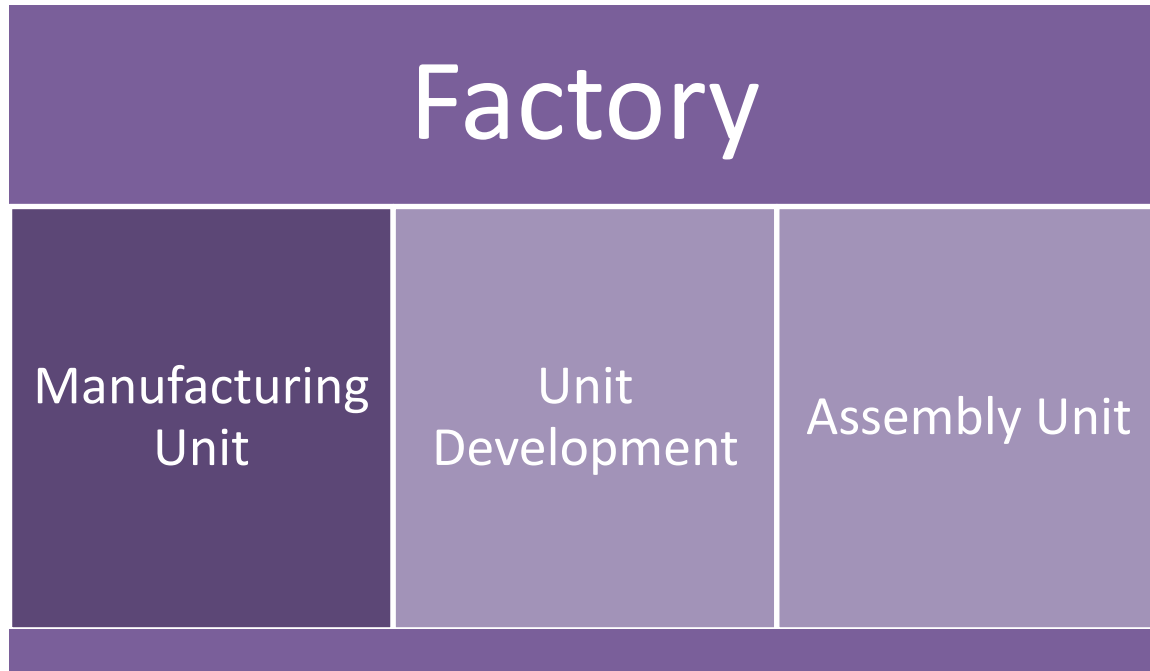
The whitepaper evaluates the concepts and presents the various advantages of the concept which could be a big step in the Rapid Application Development of Software

## Concept behind Factory

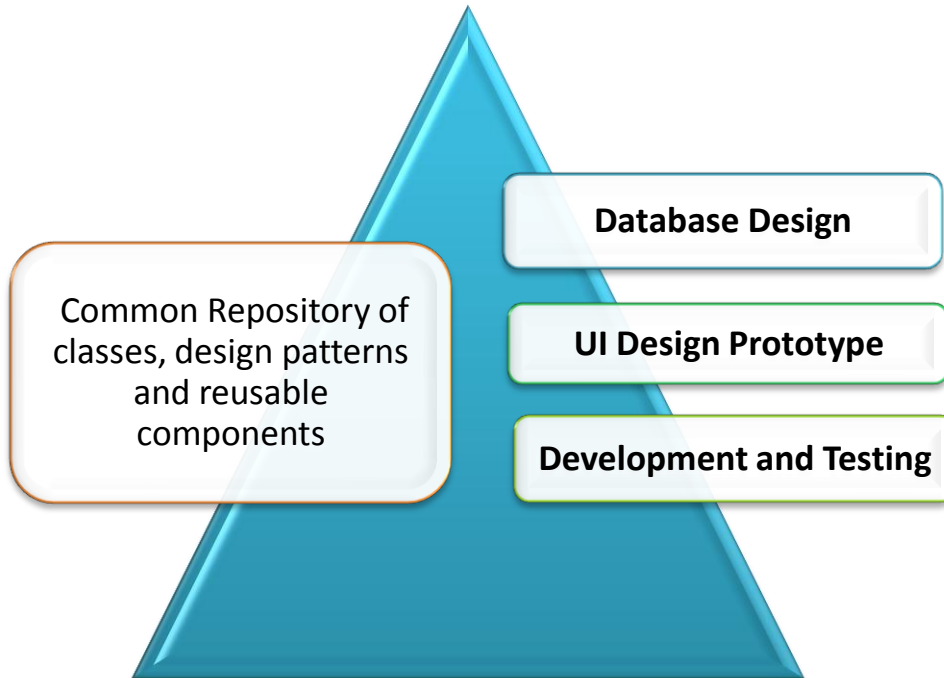
A factory consists of the following major components viz.

- Manufacturing Unit
- Unit Development
- Assembly Unit

The structure could be illustrated as follows



Software Factory also follows the same design structure and tries to make various tasks be executed independently and finally at the integration level the different functionalities could be integrated. The structure of Software Factory would be as follows



The software concept consists of the following major components

- Object Oriented Design: The concept of object oriented programming is fully leveraged and the entire architecture is designed in such a way that each process would be independent of each other.
- Repository: A common repository consisting of various libraries and classes and objects along with reusable components is used; thereby each functionality cannot only be built independently but also can be integrated easily
- Integration Unit: Based on the output of each process the integration engineer would use the final output of each process and integrate it into a final build. Thus the UI Designer has to focus only on the design and the programmer has to only focus on developing the core business logic and forming the component.

### **Advantages of Software Factory**

- Easy understanding of the project
- Scalable Architecture
- Use of OOP concept
- Less coupling
- Use of Design Patterns
- Can integrate with various software development process viz. the Spiral Model and the Agile Methodology
- Use of Specialist for a particular process
- Everyone can work independently for dependant tasks
- Foundation for Extreme Programming

