

## Assignment 2

### Justification for Prototype Creational Pattern:

The Prototype Pattern specifies the cloning of an existing object rather than the creation of a new one, and it may also be altered as needed. If the cost of producing a new object (in any project) is high and resources are scarce (limited), then in that project this approach should be adopted. This is the main reason behind using the prototype creational pattern in any project. The main factors which driven us to use this creational pattern are:

- ❑ Sometimes the resources available to the team are limited.
- ❑ Using that similar resource from scratch again and again over the period makes resource maintenance expensive.
- ❑ However, not all objects will be duplicated without prototype since some of the object's fields may be private and not visible from the outside of the object.
- ❑ The classes were required to be instantiated at runtime.
- ❑ We want to limit the number of classes in an application as low as possible
- ❑ We want to make the user application oblivious (unaware) of the generation and representation of objects.

This pattern when implemented in accord's user registration and server creation aspects improves the performance and provides the following benefits:

- ❑ It lowers the requirement for sub-classing.
- ❑ It conceals the complexity of object creation.
- ❑ It allows you to add and remove objects during runtime.