1. **WATERFALL METHODOLOGY**
2. **CONTEXT MODELS**

The system boundaries are decided by working to decide which functionality should be included in a system and what is provided in the system environment.

In this automated system, is by far replacing the usage of hand written recipes that are sometimes not reliable as they are easily lost and can change over the years, due human error when writing them down.

This system is intended to manage information about the old and new recipes and making them easily accessible. In the development of the system, them the focus is mainly on the user’s needs.

Context models normally show that the environment includes several other automated systems. However, they do not show the types of relationships between the systems in the environment and the system that is being specified.

Simple context models are used along with other models, such as business process models. These describe human and automated processes in which particular software systems are used.

1. **INTERACTION MODELS**

The different kinds interactions include user interaction, interaction between the system and other existing systems or simply interaction between individual components of the developed system.

Modeling is important as it highlights the existing problems in communication or others that may arise.

Use case modeling – use to model interactions between the system and external actors; is a more reliable approach in interaction modeling in the system being developed.

The use case is best as it is a simple scenario that describes what a user expects from the system and that’s exactly what the user expects from our system.

Transfer data

user

Recipe storage

1. **STRUCTURAL MODELS**

Structural models of software display the organization of a system in terms of the components that make up that system and their relationships. Structural models may be static models, which show the structure of the system design or dynamic models, which show the organization of the system when it is executing. These are not the same things—the dynamic organization of a system as a set of interacting threads may be very different from a static model of the system components.

They are created when one is designing and discussing the system architecture.

Class diagrams- are used when developing an object-oriented system model to show the classes in a system and the associations between these classes

Recipe

Recipe record

1. **BEHAVIORAL MODELS**

They are models of the dynamic behavior of the system as it is executing. They show what happens or what is supposed to happen when a system responds to a stimulus from its environment. There are two types of stimuli in this case;

* Data – the information that is processed by the system
* Events – the events that triggers the processing. Some events may be associated with the data sometimes.

User

Recipe record

Recipe output