**RAD Model**

The RAD (Rapid Application Development) model is based on prototyping and iterative development with no specific planning involved. The process of writing the software itself involves the planning required for developing the product. Rapid Application Development focuses on gathering customer requirements through workshops or focus groups, early testing of the prototypes by the customer using iterative concept, reuse of the existing prototypes (components), continuous integration and rapid delivery.

**RAD Model Phases**

1. **Requirement Planning Phase:** combination of Planning and Analysis phases of SDLC. Member discuss and agree on business needs, projects scope, constraints and system requirement. The team agree to a key issue and gain authorization to continue
2. **User Design Phase:** This phase is continuous interactive process that allows users to understand, modify, and eventually approve a working model of the system that meets their needs.
3. **Construction phase:** In this phase users continue to participate and can still suggest changes or improvements as actual screens, or reports are developed. Its tasks are programming and application development, coding, unit-integration and system testing**.**
4. **Cutover phase:  This phase** includes data conversion, testing, changeover to the new system, and user training in a compressed way which results in delivering product much sooner.

Requirement Planning

User Design

Construction

Cutover

**BUSINESS MODEL**

It finds vital information for business,

How it can be obtained

How and when is info. Processed

What factors driving successful flow of info.

**DATA MODEL**

Forms sets of data objects vital for business

Attribute of datasets are identified and defined

Relations are established

**PROCESS MODEL**

Process descriptions for adding, deleting, retrieving or modifying a data object are given.

Process model for any changes or enhancements to the data object sets is defined in this phase

**APPLICATION GENERATION**

The actual system is built, and coding is done by using automation tools to convert process and data models into actual prototypes.

**TESTING AND TURNOVER**

Overall testing time is reduced in the RAD model as the prototypes are independently tested during every iteration

**60 to 90 days**

**The advantages of the RAD Model are as follows −**

* Changing requirements can be accommodated.
* Progress can be measured.
* Iteration time can be short with use of powerful RAD tools.
* Productivity with fewer people in a short time.
* Reduced development time.
* Increases reusability of components.
* Quick initial reviews occur.
* Encourages customer feedback.
* Integration from very beginning solves a lot of integration issues.

**The disadvantages of the RAD Model are as follows −**

* Dependency on technically strong team members for identifying business requirements.
* Only system that can be modularized can be built using RAD.
* Requires highly skilled developers/designers.
* High dependency on modeling skills.
* Inapplicable to cheaper projects as cost of modeling and automated code generation is very high.
* Management complexity is more.
* Suitable for systems that are component based and scalable.
* Requires user involvement throughout the life cycle.

**Difference between Product Based Company and Service Based Company**

Product Based Company

1. Company which have their own products to sell.
2. Have their own development teams.
3. Specific roles and technologies.
4. Product based companies sells something tangible.
5. Product based company, **quality is king**. They want the product to be top-notch so that more people will start consuming it.

Service Based Company

1. Company do not have their own product, they work for other organizations and clients.
2. Service based company offers services that are not tangible.
3. Roles and technology are not generally specific.
4. Service based companies usually use products (Oracle, Photoshop, Premier Pro) made by product-based companies for various purposes.
5. In a service-based company, **the client is King.** They want the customer to be happy and satisfied with the product or service offered.