

# The RAD Model

- Rapid Application Development
- Emphasizes a short development cycle
- A “high speed” adaptation of the waterfall model
- Uses a component-based construction approach
- May deliver software within a very short time period (e.g. , 60 to 90 days) if requirements are well understood and project scope is constrained

## **RAD MODEL**

### **PHASES IN RAD**

- **Requirements Planning phase**
- **User design phase**
- **Construction phase**
- **Cutover phase**



## RAD MODEL

### **1. Requirements Planning phase**

- Users, managers, and IT staff members discuss on Business needs.
- They discuss on System requirements.
- They also discuss on Project scope
- It decide who will generate software.
- It tells what software will do.



## RAD MODEL

### **2. User design phase**

- It is also called as Modeling phase.
- User Design phase is a continuous interactive process.
- During this phase, users interact with software model.
- It allows users to understand, modify the System.
- It approve a working model of the system that meets their needs.



## RAD MODEL

### **3. Construction phase**

- Focuses on program and application development task.
- Tasks are
  - \* Programming and application development,
  - \* Coding,
  - \* Unit-integration and
  - \* System testing.



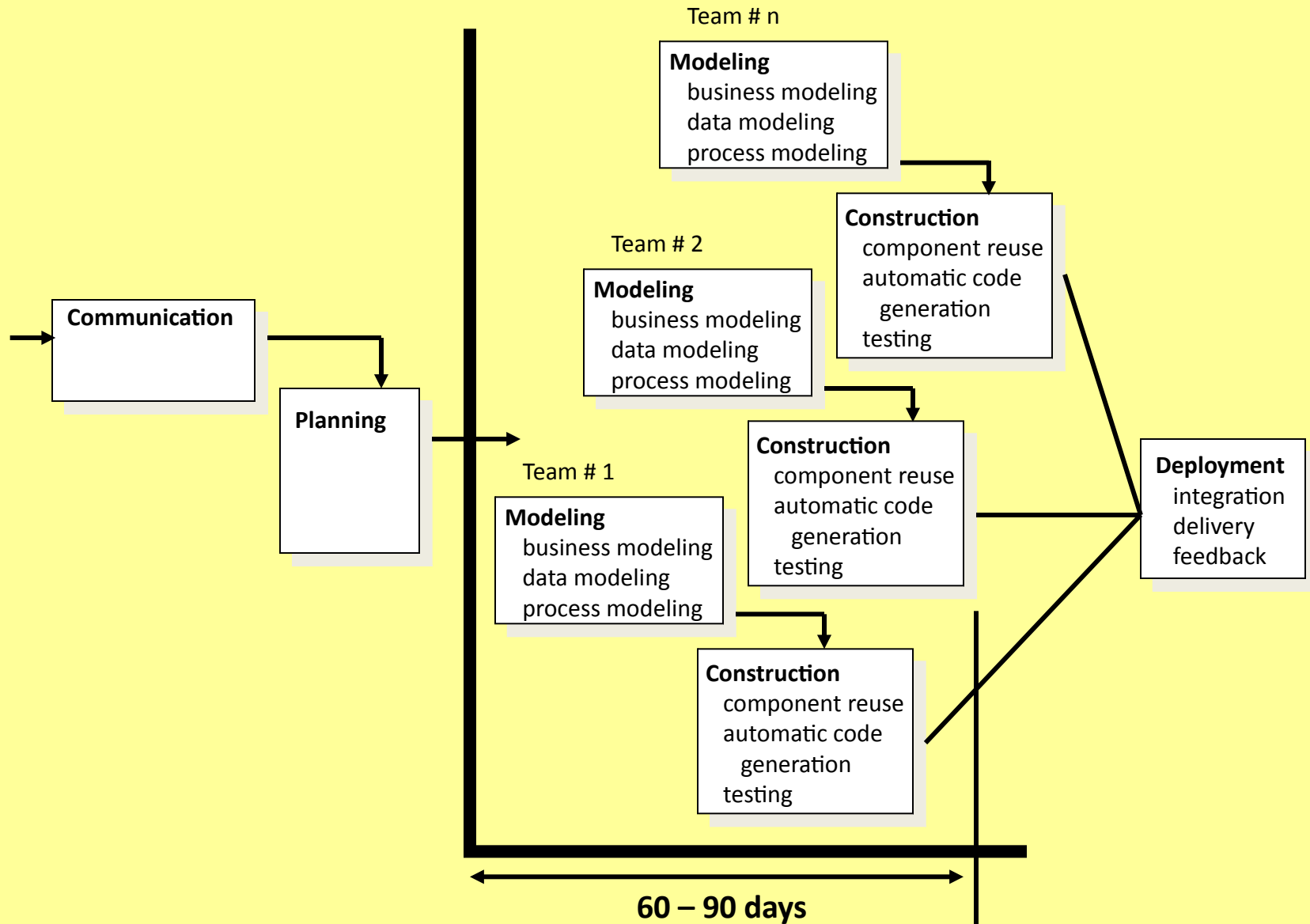
## RAD MODEL

### 4. Cutover phase

- It is the final ( Phase ) tasks in the System Development Life Cycle (SDLC).
- Its tasks are
  - \* Data conversion,
  - \* Full-scale testing,
  - \* System change over,
  - \* User training.
- In this phase the new system is built, and delivered.



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- ***Business modeling.*** The information flow among business functions is modeled in a way that answers the following questions: What information drives the business process? What information is generated? Who generate it? Where does the information go? Who process it?
- ***Data modeling.*** The information flow defined as part of the business modeling phase is refined into a set of data objects that are needed to support the business. The characteristics (called attributes) of each object are identified and the relationship between these objects defined.
- ***Process modeling.*** The data objects defined in the data modeling phase are transformed to achieve the information flow necessary to implement a business function. Processing descriptions are created for adding, modifying, deleting, or retrieving a data object.



- ***Application generation.*** RAD assumes the use of fourth generation techniques. Rather than creating software using conventional third generation programming languages. The RAD process works to reuse existing program components (when possible) or create reusable components (when necessary). In all the cases, automated tools are used to facilitate construction of the software.
- ***Testing and turnover.*** Since the RAD process emphasize reuse, many of the program components have already been tested. This reduces overall testing time. However, new components must be tested and all interfaces must be fully exercised.

## RAD MODEL

### **Advantages**

- RAD reduces the development time.
- Increases reusability of components.
- Greater Customer Satisfaction.
- Faster Delivery Time.
- Simple and Better Quality.



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### **Disadvantages**

- Requires highly skilled developers/designers.
- RAD is not appropriate when technical risk are high.
- Cant use for small projects.
- Absence of reusable component can lead to failure of the project.

