

Identifying User Stories and Use Cases



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Event Decomposition Technique

- More Comprehensive and Complete Technique
 - Identify the events that occur to which the system must respond.
 - For each event, name a use case (verb-noun) that describes what the system does when the event occurs (but no need to go to the underlying functions).



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 - Identify the events that occur to which the system must respond.
 - For each event, name a use case (verb-noun) that describes what the system does when the event occurs (but no need to go to the underlying functions).
- The appropriate level of details; for example:
 - Typing a customer name on the form as a use case? ✗
 - A use case is the entire process of adding a new customer account? ✓
 - A use case includes all working activities with customers, e.g., adding new customer accounts, updating records and contacting late-paying customers? ✗

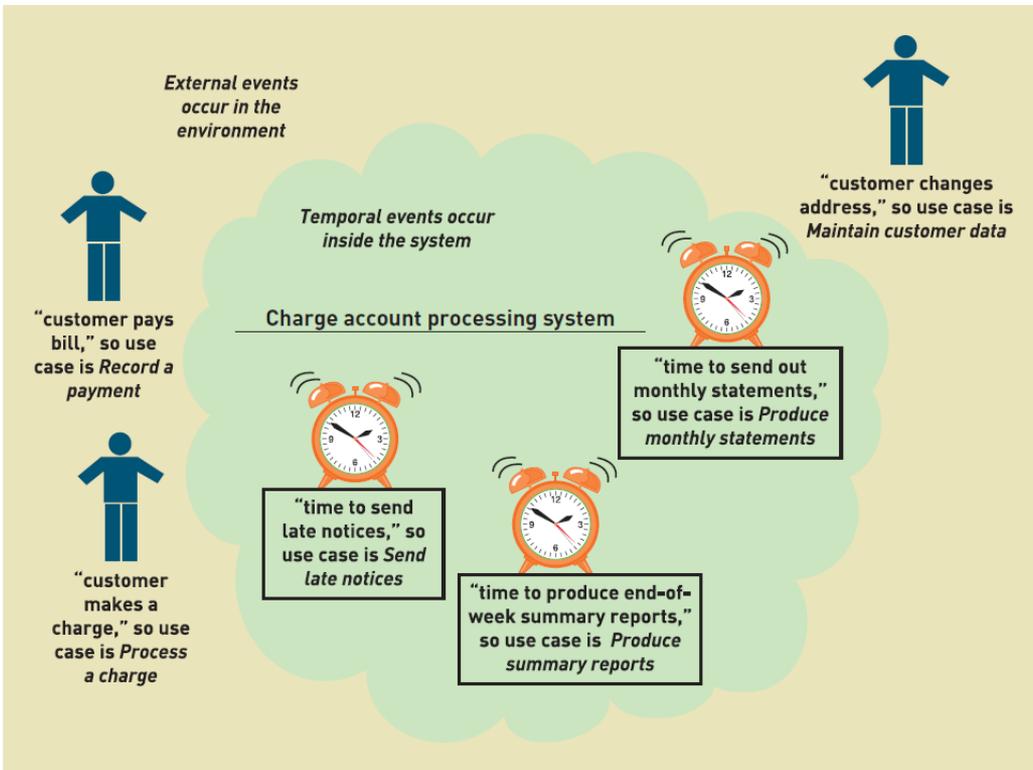


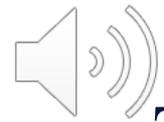
Event Decomposition Technique

- **Elementary business processes (EBP)**
 - A most fundamental task in a business process that is performed by one person in one place in response to a business event, adds measurable value, and leaves the system and its data in a stable and consistent state.
- **Event** – something that occurs at a specific time and place, can be described, and should be remembered by the system
 - Defining system requirements: What business events occur that will require the system to respond?
 - Focusing on the high-level view, rather than the underlying functions



Events and Use Cases





Types of Events

- External Event
 - an event that occurs outside the system, usually initiated by an **external agent** or **actor** – a person or organisational unit that supplies or receives data from the system
- Temporal Event
 - an event that occurs as a result of reaching a point in time
- State Event
 - an event that occurs when something happens inside the system that triggers some process



External Event

- External agent or actor wants something resulting in a transaction
 - E.g., Customer orders a product
- External agent or actor wants some information
 - E.g., Customer wants to know product details
- External data changed and needs to be updated
 - E.g., Customer has new address and phone
- Management wants some information
 - E.g., Sales manager wants to check order status



Temporal Event

- Outputs produced at points in time
 - different from external events in that the system should automatically produce the required output without an actor
- Examples:
 - Monthly management reports
 - Email reminders of outstanding payment



State Events

- Triggered by interval states
- For example:
 - When the inventory in stock drops below a reorder point, a reorder event is triggered
- Often, state events occur as a consequence of external events.
- State events may be similar to temporal events but the point in time cannot be defined.

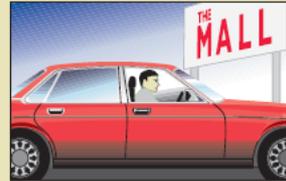


Events Versus Prior Conditions and Responses

Example –
finding the
actual event that
affects the
system:



Customer thinks
about getting a
new shirt



Customer drives to
the mall



Customer tries on a
shirt at Sears



Customer goes to
Walmart



Customer tries on a
shirt at Walmart



Customer buys
a shirt
*(the event that directly
affects the system!)*

Tracing a sequence of transactions resulting in many events



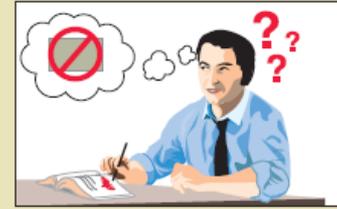
Customer requests a catalog



Customer wants to check item availability



Customer places an order



Customer changes or cancels an order



Customer wants to check order status



Customer updates account information



Customer returns the item



Event Decomposition Technique: Specific Steps

- Consider the external events in the system environment that require a response from the system, and identify and name those use cases
- Consider the temporal events that require a response from the system, identify and name those use case
- Consider the state events that the system might respond to, and identify and name the use cases and then define the state changes