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Requirements Management with Enterprise Architect

Department of Software



Requirements



Lecture two consist of

- ❖ what is Requirements Model
- ❖ The most significant reasons for difficulties of Requirements Management
- ❖ Glossary of Terms (**Element** , **Model** , **Diagram**)
- ❖ The contents of the toolbox in requirement model
- ❖ Relationship type in requirement model

Requirements Model

What are requirements?

- Requirements are essentially what the system, application or business process is required to do. ما هو المطلوب من النظام أو التطبيق
- Requirements are a cornerstone حجر الزاوية of software development.
- The management of requirements is one of the more difficult and problematic disciplines in the software development industry.

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The most significant reasons for difficulties of Requirements Management are:

- Diverse group input into the requirements مدخلات مجموعة متنوعة في المتطلبات
- Volatility of requirements تقلب المتطلبات
- Imprecision of natural languages الغموض في اللغات الطبيعية
- The Enterprise Architect can be used to reduce **تقليل أو** (and in many circumstances remove) these **ازالة الصعوبات** problems.

Glossary of Terms

- The following is a list of terms, and how they relate to requirements management and Enterprise Architect:

Element – A generic term referring to a singular object in a model, e.g. requirements, actors.

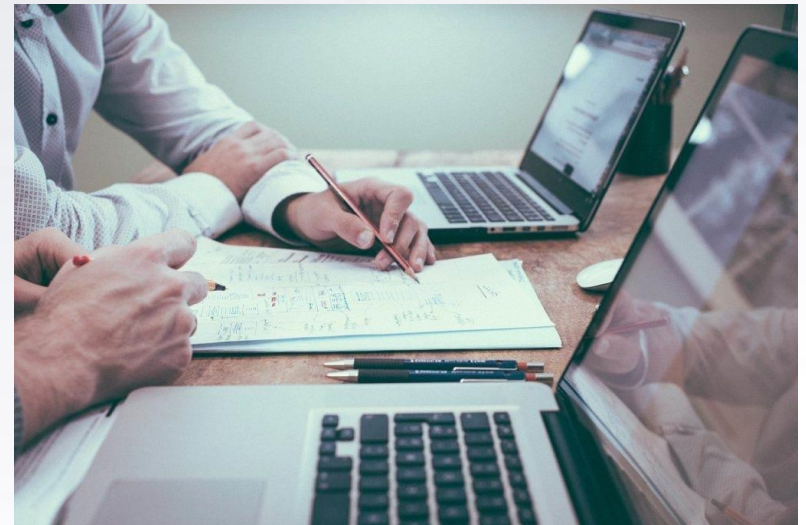
• **Diagram** – A common way of representing the way in which models and elements interact.

• **Model** – A representation of a particular system, such as a business process or a database.

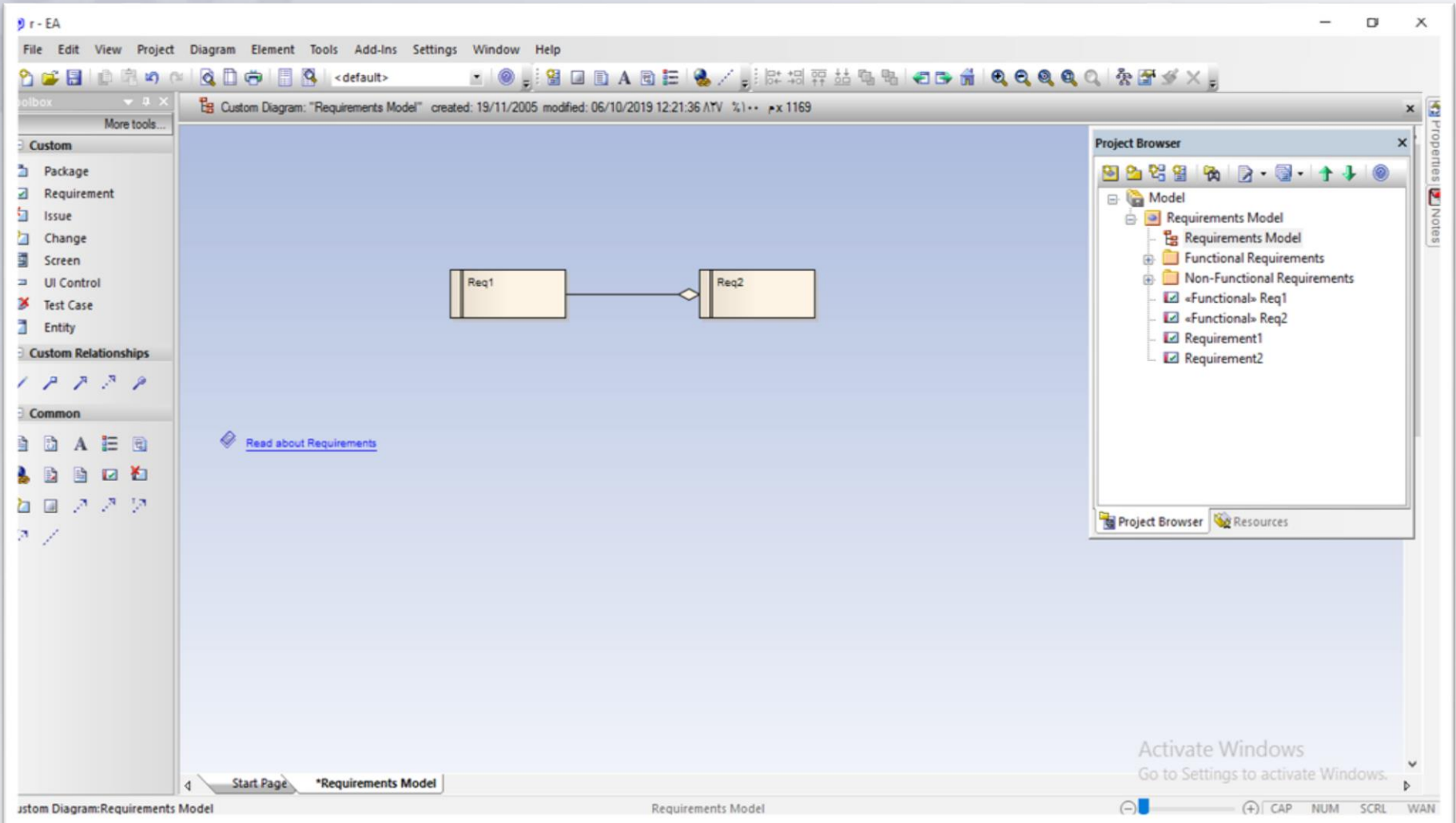
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- **Requirements Modeling**

for model requirement, we must use the Requirements palette of the Toolbox that is located at the far left of the Enterprise Architect interface, in the Toolbox as shown in the figure 1.



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The contents of the toolbox

- **Package:** is a namespace as well as an element that can be contained in other Package's namespaces. A Package can own or merge with other Packages, and its elements can be imported into a Package's namespace, (Package imports or merges).

Requirement: is a custom element used to capture requirement. A requirement expresses required system behavior. You can connect requirement to other element using realize connector.



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Issue: is a structured comment that contains information about defect and issues relating to the system.

Change: is a structured comment that contains information about changes requested to the system.

Screen: is used to prototype User Interface screen flow. you can build up a solid and detailed understanding of user interface behavior without having to use code. It is display a GUI.

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- **UI Control:** represents a user interface control element (such as an edit box). It is used for capturing the components of a screen layout and requirements in a Custom or User Interface diagram.
- **Entity:** simple element that represents any general thing.

Relationship Types (Connector Types)

- **An Association:** implies two model elements have a relationship.
- **An Aggregation:** Requirements linked by aggregation relationships form a composition hierarchy. is a type of association that shows that an element contains or is composed of other elements.



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A Generalization: is used to indicate inheritance, the generalize implication is that the source inherits the target's characteristics.

A Realizes: a source object implements or Realizes its destination object.

A Nesting: is express containment or nesting of elements within other elements.



Thank You