Requirements engineering

Eduard Sing, Lilit Stepanyan
Bahman Ghandchi, Paria Molayemvand, Svetlana Filipova

University of Tartu

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Overview

1. Requirements Engineering Framework
2. requirements engineering process
3. Major activities
4. Major artefacts
Framework of the book

**Definition: framework**

A framework provides functionalities/solution to the particular problem area.

**This book’s framework**

"The emphasis of the book is on a broad coverage of requirements engineering. Meaning that no particular approach is discussed. Because authors believe that there is no single requirements engineering technique which is applicable to all types of system."
Requirements engineering process

Definition: process
The structured set of activities involved in developing system requirements

Definition: process
The structured set of activities which are followed to drive, validate and maintain a systems requirements document
Requirements engineering process

Figure: Inputs and output of RE Process
Major activities

Activities

- **Requirements Elicitation**
  Application Domain Understanding, Problem Understanding, Business Understanding, Understanding the needs of stakeholders

- **Requirements Analysis and Negotiation**
  Requirements Specification

- **Requirements Documentation**
  Appropriate level of details, understandable by all stakeholders

- **Requirements Validation**
  Certifying that the requirements represent an acceptable description of the system which is to be implemented

- **Requirements Management**
  Uniquely identifying the requirements
Requirements engineering activities

Figure: RE activities
## Major artefacts

<table>
<thead>
<tr>
<th>Artefacts</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreed Requirements</td>
<td>A description of requirements understandable by and agreed with stakeholders</td>
</tr>
<tr>
<td>System specification</td>
<td>Detailed specification for system functionality</td>
</tr>
<tr>
<td>System model</td>
<td>A set of models describing the system from different perspectives</td>
</tr>
</tbody>
</table>
References

Gerald Kotonya, Ian Sommerville
Requirements Engineering: Processes and Techniques
J. Wiley, 1998
The End