

# UP artifacts

A	<b>(Design) Class Diagram</b>	<ul style="list-style-type: none"> <li>• Use the underlined nouns from the <u>use cases</u> to create the concepts in the conceptual model.</li> <li>• Some of the nouns, if they identify simple data types, are used to create attributes of these concepts.</li> <li>• Create associations between the concepts.</li> </ul>
B	<b>Conceptual Model (aka Domain Model)</b>	<ul style="list-style-type: none"> <li>• Specify post-conditions for each system event in the <u>system sequence diagrams</u>.</li> <li>• Use the <u>domain model</u> to identify objects created, associations formed, and attributes modified.</li> </ul>
C	<b>Code</b>	<ul style="list-style-type: none"> <li>• Create an interaction diagram for each system event in the <u>system sequence diagrams</u>.</li> <li>• Assign responsibilities to classes in the <u>domain model</u> to fulfill the post-conditions in the <u>contracts</u>.</li> <li>• Use associations from the <u>conceptual model</u> in conjunction with patterns to assign responsibilities.</li> </ul>
D	<b>Operation contracts</b>	<ul style="list-style-type: none"> <li>• Define user interaction with the system.</li> <li>• Underline nouns to identify concepts in the problem domain.</li> </ul>
E	<b>Use cases</b>	<ul style="list-style-type: none"> <li>• Create classes with their names, attributes and method signatures taken from the <u>class diagram</u>.</li> <li>• For each method on a class, use the <u>interaction diagrams</u> to find the sequence of messages generated when the method is called and create at least one line of code for each message.</li> </ul>
F	<b>Interaction Diagram</b>	<ul style="list-style-type: none"> <li>• Create system sequence diagrams for each <u>use case scenario</u>.</li> <li>• Each sequence event in the diagram corresponds to a user interaction with the system specified by the <u>fully dressed use case</u>.</li> </ul>
G	<b>System Sequence Diagram</b>	<ul style="list-style-type: none"> <li>• Add methods and additional attributes which were discovered in the <u>interaction diagrams</u> to the classes in the <u>domain model</u>.</li> </ul>

## Order

1. Use Cases
2. Conceptual Model (aka Domain Model)
3. System Sequence Diagram
4. Operation Contracts
5. (/6) Interaction Diagram
6. (/5) Class Diagram
7. Code