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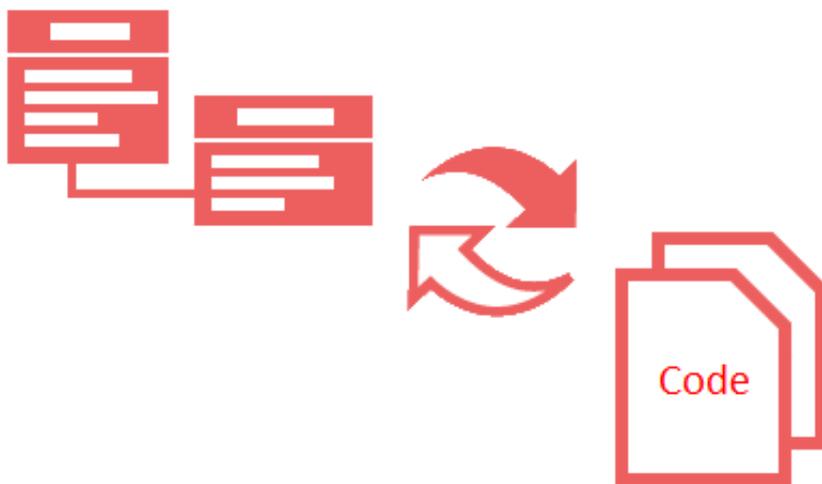
## Chapter 25. Code Engineering

### What is Code Engineering

Visual Paradigm code engineering provides a powerful, and yet intuitive graphical interface for forwarding UML models to programming languages, as well as reversing code back to UML model for documentation. Here is some popular use cases for coding engineering:

### Java Round-Trip Engineering

Generate Java source code from [UML](#) class model, and let the UML model reflect the change you made in source code. Round-trip engineering helps keep your Java source code and software design **synchronized**. Every time you generate code or update UML model, changes will be merged.



### REST Code & Documentation Publisher

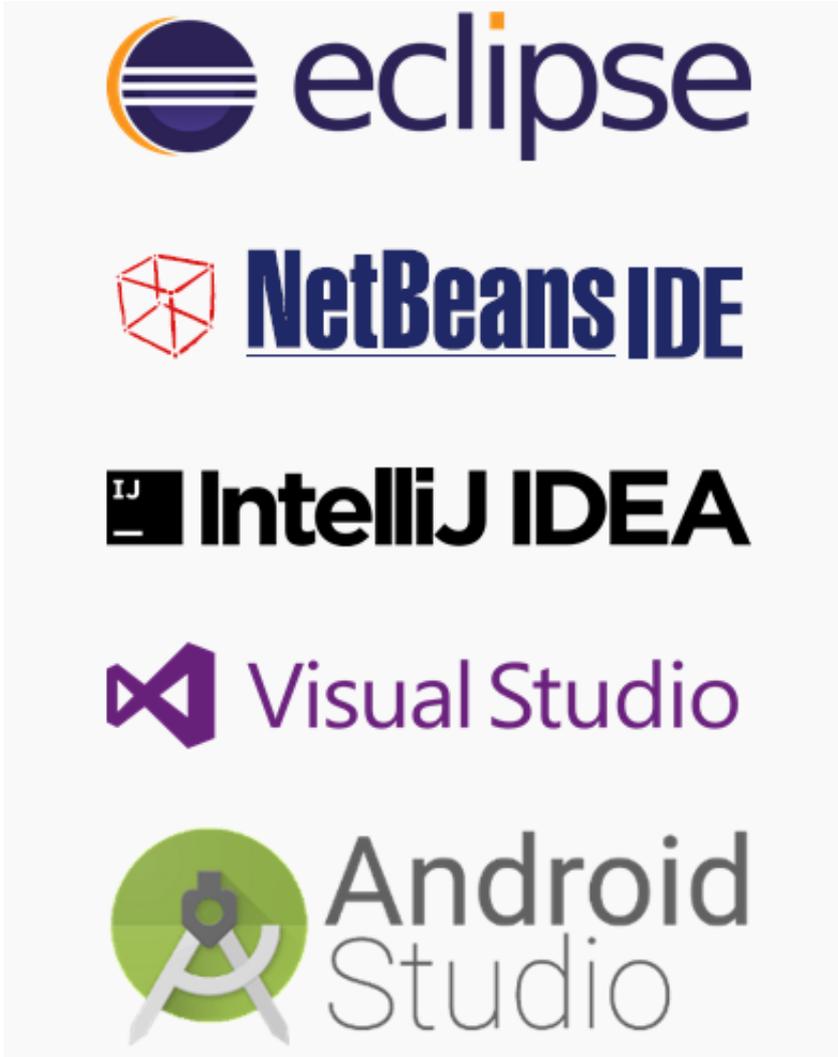
Generate executable Java code and HTML documentation for you to get started with RESTful API development. Both back-end development and client side consumption are supported and benefited by the HTML documentation and visual communication model generated.



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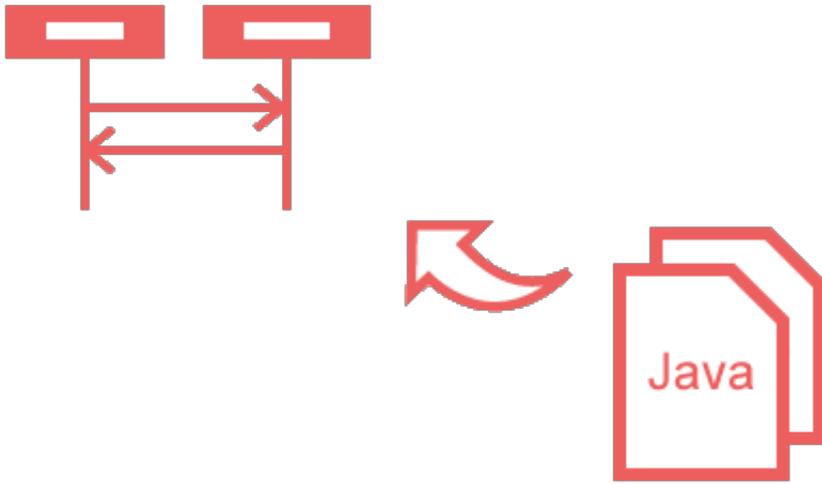
## Run in IDE

No switching applications, no hassle! Design and implement software within a single environment - your favorite IDE. With the UML editor **seamlessly integrated** into the IDE, you can focus on developing your great software comfortably. Just click once to update your code from UML design, click again to have your UML class model updated base on the source code.



## Form Sequence Diagram from Java Code Logic

Study the runtime behavior of an application by mean of a UML sequence diagram. Visual Paradigm supports the **reverse engineering of sequence diagram** from Java source code.



## Range of supported languages

C#, Java, DLL, .NET, VB.NET, PHP, Python, XSD, XML, ActionScript, Objective-C, Ada95, ODL, IDL, Delphi, PERL & Ruby

## State machine code generation

Model controller class and its state machine with class diagram and state machine diagram, and generate the source code for the state machine.

## Export state machine diagram to SCXML

Export **State Chart XML (SCXML)** from state machine diagram.