# iOCL Code Documentation

iOCL is based on JSF that is a MVC framework. JSF handle the inputted requests and provides users with corresponding reviews for response. From the perspective of architecture, iOCL includes multiple views called *panels* that can be triggered and displayed based on a particular step of OCL constraint specification. Each panel is associated with a java function called *action*. For each action, *Query Analyzer* maintains the current step of of constraint specification and the relevant panels with the aim to enable users for navigating and switching between panels.

In terms of the code (as shown in the Github), iOCL contains of 1) web resources that include all the panels (in total 21 panels as described in the user manual) and 2) three major java packages implemented for the functionalities. The web recourses and packages and are presented in detail as below.

1. Web resources (i.e., **webapp/panels**)

**webapp/panels** are view templates as shown in the architecture of iOCL (in the paper). We design in total 21 panels (described in the user manual) to achieve maximum reusability. All these panels are associated with corresponding java methods included in the three Java packages.

2. Three java packages:
    a. **Package no.simula.models.actions**: This package contains view actions (associated with panels) for implementing various functionalities when specifying OCL constraints, such as selection operation, selection attribute and compression value.

    b. **Package no.simula.models.models**: This package contains data structure related with the models, e.g., describing class, capturing relations between classes and objects of classes required to evaluate constraint.

    c. **Package no.simula.models.readers**: This package contain classes and methods to integrate (communicate) with other external tools, e.g., EMF, eclipse OCL and EsOCL, with the aim to enable iOCL to interpret UML and Ecore models, validation and evaluation of the specified constraints and generation of model instances to check the correctness of the specified constraints.