The model classes by the developer view are:

* UserProfile
* UserButton
* UserExercise

The views for the developer view are defined in /templates/developer\_view/. The views included for the developer view are:

* student\_list.html
* student\_exercise.html
* exercise\_list.html
* exercise\_detail.html
* timeline\_sum.html
* timeline\_detail.html

The tables and bar graphs in these pages are implemented using html and CSS. The line and timeline graphs are implemented using JavaScript.

The controller for the developer view is defined in /opendsa/developerview.py. The classes in the developer view are:

* document\_ready\_activity
  + The module loading activity counting class. module: module object; activity\_num: number of loading.
* proficient\_exercises
  + date: the proficiency date in Data format; exercises: a list of exercise object.
* exercise\_step
  + The exercise detail step class. step\_num: step number; time: time spent; click\_num: number of clicks; is\_backward: boolean field if the step is backward step
* docready\_event
* general-event

The view definitions for the developer view are:

* student\_list
  + Defines the student list view. Uses the UserProfile model to build the list of student objects.
* student\_exercise
  + Uses UserButton model to fetch the activities of loading modules. The activity name is “document-ready”. Uses UserExercise model the build the list of proficient\_exercises.
* exercise\_list
  + Defines the exercise list view. Uses the UserButton model to fetch the exercises that are performed activities in the module.
* exercise\_detail
  + Defines the exercise summary & details views. Uses UserButton to fetch the activities performed for the exercise. The activities named “jsav-forward” and “jsav-backward” are recorded and handled. Uses UserExercise to fetch the proficiency date of the exercise and uses UserButton to list the dates the student reviews the exercise.
* timeline\_sum
  + Defines the timeline view of document ready events.
* Timeline\_detail
  + Defines the timeline view of events other than document-ready on a single day.