High Level Design

# UI

The day view calendar component comprise of below UI elements:

1. Time column, it shows time list on the left.
2. Events column, it is container of event box, it is on the right.
3. Event box, it show single event information on the right time slot, and it comprise of below parts:
   1. Container with blue background, it is for the blue bar on the left of each event box.
   2. Event div inside container, it convert all the container except its margin-left.
   3. Another div inside above event div to show location .

# Component

I generate html of calendar by using javascipt component, then append it to div jquery object after page load. There are 2 components in the main.js, they are:

1. CalendarDayView, it is class to generate html code. it use DayEventsManager to get event list with position information.
2. DayEventsManager, it handle event list with below functions:
3. Validate all events, make sure all events have start and end number, and all of those number are between 0 and 12\*60.
4. Calculate position for each event, add 2 more properties for each event:
5. overlay, it indicates overlay number of events for same time slot, if it is 1, there is no other event overlay with it. It is used to calculate width of each event box.
6. col, it indicates position in horizon. If there are events overlay, I display them in same time slot column by column.

# Test

I create several test cases for the component DayEventsManager, to test it’s validate and calculate functions. I use QUnit test library, and put them in test folder.