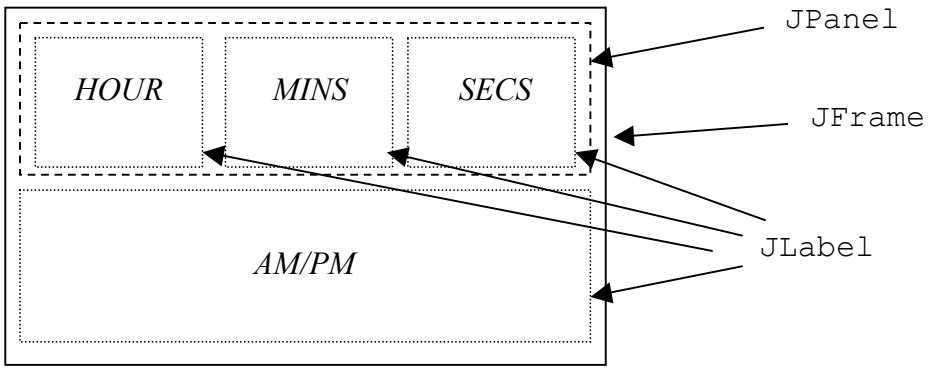
F27SB2 Software Development 2
Laboratory 2

a) Write a program to run a digital clock in its own window. The clock should have the following layout:



so:

- *HOURS* - displays the hours
- *MINS* - displays the minutes
- *SECS* - displays the seconds
- *AM/PM* - displays whether it is before mid-day (AM) or after mid-day (PM).

The hours/minutes/seconds should be displayed in 36 point, italic serif.

You should use the `Calendar` class from `java.util` with:

- `Calendar.getInstance()` - create `Calendar` object for current date/time
- `get(`*`field`*`)` - return integer field from `Calendar` object, where *`field`* may be `Calendar.HOUR`, `Calendar.MINUTE`, `Calendar.SECOND`, `Calendar.AM_PM`, etc.
- the value returned from `Calendar.AM_PM` may be compared with the values `Calendar.AM` and `Calendar.PM` to determine if it is before or after mid-day

Note that if you write a tight loop that tries to continually update the time without pausing, your clock may freeze.

b) Many windows applications have meters that indicate the progress made so far towards completing an activity as a percentage of the anticipated total activity. Write a program to display a progress meter as follows. The meter consists of a window with a column of 11 labels. The first 10 labels indicate progress steps of 10% and are initally red. The bottom label shows the amount of activity remaining as a textual percentage, and is initially set to “0%”. To simulate steps of 10% progress, the user repeatedly presses return. Every time, the top-most red label is changed to green and the progress label value is incremented by 10 until that value is 100.