System Testing :

1. System testing was implemented on Selenium, to test the full flow of generating timetable. The order of execution is as follows:
2. Login
3. Add the available room information
4. Generate timetable (Satisfy 'Hard constraints')
5. View timetable generated
6. Add Prof/Weekly constraints
7. Modify timetable (Satisfy 'Hard constraints' and ‘Prof/Weekly constraints’)
8. View timetable generated
9. Add One Time constraints(ex. CNY)
10. Modify timetable (Satisfy ‘Hard constraints’ and ‘Soft constraints’)
11. View timetable generated
12. Logout
13. If there are too many Prof/Weekly constraints, a timetable could not be generated. To what extent constraints are acceptable depends on the lecture time. In case of “Ernest”, if there were no constraints on other professors, he was able to put constraints on timetable for up to three days(08:30-18:00). However, in case of “Sudipta” who has longer lecture hours, he was not able to put constraints on timetable for more than one day(08:30-18:00).

Robustness testing :

1. Robustness testing was implemented on Selenium, to test the situation that user enter an invalid input(Random string as input, long string as input, empty input). The situations are as follows:
2. Login
3. Add room
4. Add constraints
5. We confirmed that various kinds of input values can be enter the system during testing. Then. we set the input format and made it into regular expression to prevent input of invalid value.
6. Tests show that the boundary of length limit as input that can be passed in form is close to 100000. When the length was 100,000, there were errors and sometimes it wasn't. We set max length to 1000 to limit the situation in which the error occurred.