**REQ-1:** The system should let a user upload two mandatory csv files

**REQ-2:** The system should provide a way of selecting courses that the user needs to schedule

**REQ-3:** The system should generate an optimal timetable of exams

**REQ-4:** The system should be able to display the generated timetable showing exam sessions

**REQ-5:** The system should allow the user to specify a clash parameter

**REQ-6:** The system should set an initial class parameter of 1 if the user does not specify a clash parameter

**REQ-7:** The system should allow the user to set a limit on the number of exam sessions

**REQ-8:** The system should increase the clash parameter until the number of sessions in the generated timetable is less than or equal to the max sessions set

**REQ-9:** The system should find specified courses’ positions in the timetable

**REQ-10:** The system must display students with the worst timetables

**REQ-11:** The system must show all the other courses that interact with a specified course

**REQ-12:** The system must allow the user to search for individual student timetables

**REQ-13:** The system must generate summary data

**REQ-14:** The system must allow the user to merge courses

**REQ-15:** The system must allow the user to edit the timetable

**REQ-16:** The system must generate a timetable within 5 minutes

**REQ-17:** The system must provide continuous maintenance

UC1: Upload csv file

UC2: Select courses

UC3: Create timetable

UC4: Read timetable

UC5: Update clash parameter

UC6: Update sessions limit

UC7: Read course session

UC8: Read worst timetable

UC9: Read course interactions

UC10: Search courses

UC11: Generate summary data

UC12: Merge courses

UC13: Update timetable

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Req’t** | **PW** | UC1 | UC2 | UC3 | UC4 | UC5 | UC6 | UC7 | UC8 | UC9 | UC10 | UC11 | UC12 | UC13 |
| REQ-1 | **5** | **X** |  |  |  |  |  |  |  |  |  |  |  |  |
| REQ-2 | **4** |  | **X** |  |  |  |  |  |  |  |  |  |  |  |
| REQ-3 | **5** |  |  | **X** |  |  |  |  |  |  |  |  |  |  |
| REQ-4 | **3** |  |  |  | **X** |  |  |  |  |  |  |  |  |  |
| REQ-5 | **1** |  |  |  |  | **X** |  |  |  |  |  |  |  |  |
| REQ-6 | **3** |  |  |  |  | **X** |  |  |  |  |  |  |  |  |
| REQ-7 | **1** |  |  |  |  |  | **X** |  |  |  |  |  |  |  |
| REQ-8 | **3** |  |  |  |  | **X** |  |  |  |  |  |  |  |  |
| REQ-9 | **2** |  |  |  |  |  |  | **X** |  |  | **X** |  |  |  |
| REQ-10 | **3** |  |  |  |  |  |  |  | **X** |  |  |  |  |  |
| REQ-11 | **4** |  |  |  |  |  |  |  |  | **X** |  |  |  |  |
| REQ-12 | **4** |  |  |  | **X** |  |  |  |  |  |  |  |  |  |
| REQ-13 | **2** |  |  |  |  |  |  |  |  |  |  | **X** |  |  |
| REQ-14 | **3** |  | **X** |  |  |  |  |  |  |  |  |  | **X** |  |
| REQ-15 | **4** |  |  |  | **X** |  |  |  |  |  |  |  |  | **X** |
| REQ-16 | **3** |  |  | **X** |  |  |  |  |  |  |  |  |  |  |
| REQ-17 | **3** |  |  |  | **x** |  |  |  |  |  |  |  |  | **x** |