**CHECKLIST FOR CLASS SCHEDULING APPLICATION**

**GREEN TEAM**

***PURPOSE OF THE CHECKLIST:***

This checklist is provided as part of the evaluation for the application. The checklist assists SQA member(s) in determining whether the application has met the specification document and requirements. It also assures that application achieves the highest standards relative to format, consistency, completeness, quality, and presentation.

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| --- | --- | --- | --- |
| ***Designated Reviewers:*** | ***Start Time:*** | ***Completed Time:*** | ***Comments:*** |
| *1:* |  |  |  |
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| *4:* |  |  |  |
| *5:* |  |  |  |
| *6:* |  |  |  |

USER INTERFACE

* Home Page

Are all interfaces clear and well defined?

Can outside users view the class schedule without logging in if a schedule is created?

Can faculty members or admins access log in function when viewing as outside users?

After log in, will the application take users to the faculty page or admin page?

* Faculty Page

Can faculty members log out from faculty page?

Can faculty members view their max hours and current hours?

Can faculty members view their user names on faculty page?

Can admin switch from faculty page to admin page if he/she is an admin?

Can faculty members add course preferences when current hours less than minimum hours?

Can faculty members select time preferences for the selected courses?

Will faculty members be forbidden to add course preferences when current hours greater than minimum hours?

Can faculty members save the preference changes?

* Admin Page

Can admins log out from admin page?

Can admins view their user name on admin page?

Can admin switch from admin page to faculty page if he/she is also a faculty?

Can admins switch between the input pages?

Can admins switch to account management page?

Can admins view the current existing accounts?

Can admins edit current existing accounts’ password?

Can admins delete current existing accounts?

Can admins reset the accounts if needed?

Can admins add a new account

Can admins upload a faculty account file?

Can admins switch to scheduling rules page to set scheduling rules?

Can admins view the input file from the page?

Can admins edit/discard the editable input files from page?

Can admins save the changes to the input file?

Can admins browse file?

Can admins type the directories of the input file?

Can admin submit the input file?

Can admin create schedule from the admin page?

Can admin view/edit schedule from the admin page?

User Accounts and Login Information

* Login Accounts

Are there two admin accounts by default?

Is one admin is also a faculty?

Do admins/faculty members change their usernames, password or email address on first login?

Is it required to login in with the updated information after the first login?

Are faculty member’s usernames the email addresses in the faculty account input file?

Are the usernames unique?

Can admin change the faculty members’ information by editing the faculty input file?

Can Admin add faculty accounts?

After admin edits a faculty account; will the stored faculty preferences be deleted?

After admin edits a the faculty account; will the existing faculty accounts be deleted?

After admin edits a faculty account; will the new faculty accounts be constructed?

Can admins retrieve/edit lost usernames?

Can username contain space?

* Password

Can admins change their password on first login?

Do faculty accounts have default password when created?

Can faculty members change their password on the first login?

Can admins retrieve/edit lost passwords?

Password constraints:

Are passwords 6 to 9 characters long inclusive?

Are passwords case sensitive?

Do passwords start with alphabetic character?

Do passwords contain one numeric character?

Do passwords contain an exclamation point (!), a question mark (?), or a comma (,)?

* Security

Will the faculty account lock after 3 failed login attempts?

Will the password for the admin account be changed automatically after 3 failed login attempts?

Will the admin receive a courtesy email inviting him/her to log on with the new password?

Is the admin required to change the new password before the account has any functionality?

After a faculty/admin logs out, can he/her go back to his/her page by clicking the browser go back arrow?

Can an outside user access admin/faculty page by typing the directory address on the browser?

SCANNERS

Does the scanner report error messages if the file name is incorrect?

Does the scanner report error messages if there is an empty file?

Does the scanner report error messages if there is an empty line in the file?

Does the scanner report error messages if there are missing fields in a line of the file?

Does the scanner report error messages if there are extra fields at the end of the line?

Does the scanner report error messages if there are duplicate data in different lines of the file?

Does the scanner report error messages if the field does not match the current reading field?

Does the scanner report error messages if data exceeds the data limitation?

Does the scanner stop reading the line if an error exists in the line?

Does the scanner continue reading next line if the current line has error(s)?

FILE INPUT

Refer to the test file documentation in Test Files binder for:

* + Available Rooms Test Files
  + Class Times Test Files
  + Conflict Time Test Files
  + Course List Test Files
  + Faculty Member Test Files
  + Prerequisites Test Files
* Documents:

Are all 6 documents created?

Do all 6 documents have file name field?

Are the file names in the file name field in all 6 documents correct?

Are the results of the correctness field in all 6 documents correct?

Are the descriptions of each file in all 6 documents correct?

Is the number of errors of each file in all 6 documents correct?

Have all 6 documents been signed? (Therefore checked)

* Storing:

Does each File\_Reader read through the whole file?

Does each File\_Reader give proper error messages if there is any in each file?

Does each File\_Reader read each field of each file properly?

Does each File\_Reader write the data into output file properly?

FACULTY PREFERENCE INPUT

Can faculty adds a course as preference?

Can faculty views a list of available courses?

Can faculty picks a time preference while picking a course preference?

Can faculty leaves the time preference blank while picking a course preference?

Can faculty submit the new preference?

When a new preference is submitted, is it the only preference added?

If a faculty tries to add a duplicate class, is a message displayed instead of creating duplicate classes?

Can faculty changes the time preference for a selected course preference?

When a faculty edits time preferences, no extra preferences are changed

Can faculty drops a course preference?

When a faculty drops preferences, no extra preferences are dropped

Can faculty saves the changes of course preferences?

When a faculty adds a preference, is a conformation message displayed?

When a faculty edits a preference, is a conformation message displayed?

When a faculty drops a preference, is a conformation message displayed?

Can faculty change and/or drop multiple courses at the same time?

Can the preference input distinguish between an internet preference and a classroom preference?

When a preference is added, is it added for the instructor that is currently logged in?

Does the table only display preferences selected by the instructor that is currently logged in?

Is the instructor’s name displayed in the page?

Is the instructor’s current hours displayed on the page?

Is the instructor’s max hours displayed on the page?

If the instructor has already reached his/her max hours, is the instructor prevented from adding new preferences?

When a faculty change one of his/her preferences, no preferences of other faculties is affected?

SCHEDULING ALGORITHM

Does the algorithm report error message if it cannot open the file contains data from file input?

Does the algorithm read the file input data properly?

Does the algorithm store the data from file input properly?

Refer to the documentation for scenarios file:

Does the algorithm run through all the scenarios with no errors?

Does the algorithm generate schedule for each scenario?

Does the algorithm report courses cannot be scheduled if there is any?

Does the algorithm use heuristic algorithm to create the best schedule?

Does the algorithm store the output properly?

Does the schedule vary if an admin edit any input file?

Does the algorithm consider the faculty members seniority?

Does the algorithm consider the time slots?

Does the schedule contain a room to a class if the room size is less than the class size?

Does the schedule contain a room to multiple courses at the same time slot?

Does the schedule contain a room to a same course in different time slot when it only offers this course once?

Does the schedule let a faculty teach multiple courses at the same time slot?

OUTPUT

* Graphical Representation of Output

Can the graphical representation be viewed by any level of users?

Is the graphical representation shown clear and well organized?

Is the graphical representation contains course information?

Is the graphical representation contains room information?

Is the graphical representation contains instructor information?

Is the graphical representation contains time slot information?

Can the graphical representation be sorted by course name?

Can the graphical representation be sorted by room number?

Can the graphical representation be sorted by instructor?

* Excel Representation of Output

Can the Excel representation be viewed by any level of users?

Can the Excel representation be downloaded by any level of users?

Is the Excel representation shown clear and well organized?

Is the Excel representation contains course information?

Is the Excel representation contains room information?

Is the Excel representation contains instructor information?

Is the Excel representation contains time slot information?

Can the Excel representation be sorted by course name?

Can the Excel representation be sorted by room number?

Can the Excel representation be sorted by instructor?

USER MANNUAL

* General

 Does it explain its purpose?

Does it describe the needed software?

Does it explain how to install the app?

Does it explain the format of the schedule?

Does it have good graphical representation of the application?

* Faculty

Does it explain how to login as faculty?

Does it explain how to enter preferences as faculty?

Does it explain how faculty can view their courses?

Does it explain the faculty preference page?

Does it explain the faculty main menu page?

Does it show how to access the help page on the faculty page?

* Admin

Does it explain how Admin logs in?

Does it explain how to generate schedule?

Does it explain how to view schedule conflicts?

Does it explain how to access help menu?

Does it explain each page?

* Outside User

Does it have an appropriate explanation for outside users on the schedule?