



# **PERTANDINGAN WORLDSKILLS MALAYSIA KATEGORI BELIA (WSMB) TAHUN 2020**

## **(WEB TECHNOLOGIES)**

### **SOALAN PRAKTIKAL**

### **PERINGKAT PRA-KELAYAKAN**

### **MASA : 4 JAM**

**NAMA:** \_\_\_\_\_

**No. KP:** \_\_\_\_\_

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KEMENTERIAN SUMBER MANUSIA**

## INTRODUCTION

You need to develop a web application, which will be used as a Task Manager for this competition using open source libraries functionality or frameworks provided. The application manages tasks according to three statuses and is represented by a board with three columns, as shown in figure 1.

Backlog	In-Progress	Done
Task4	Task 2	Task 1
Task5	Task3	:
Task 6	:	:
:	:	:

*Figure 1*

- Backlog: This column lists all tasks waiting to be done
- In-Progress: This column lists all tasks that have been started
- Done: This column lists all completed tasks

The main page of the application consists of two areas:

- A form to create a new task
- A board to manage tasks according to the three columns

You can use the layout (layout.png) provided as reference to develop the application. You can modify / update the files (image, code) provided to perform the operations / requirements requested in the application. It is the responsibility of the competitor to ensure the correct functioning of the modified files.

## DESCRIPTION OF PROJECT AND TASK

The application needs to handle the following operations:

1. Create tasks
2. Move tasks between columns
3. Edit tasks
4. Delete tasks
5. End tasks
6. Order tasks inside each column
7. Save operations into the database (local storage)
8. Accessibility

### 1.0 Create tasks

When a new task is added, its status should be automatically set to "Backlog" and it should be displayed in the proper column. Each task should display its respective ID and description. Validation is required on the task register form in order to avoid incorrect data to be entered. (E.g. task with no description).

### 2.0 Move tasks between columns

- 2.1 It should be possible to move tasks between the columns using drag-and-drop functionalities according to the following workflow:



Figure 2

In order to improve usability, when the user is dragging a task over a column, a warning should be displayed to inform the user whether or not that task is allowed to be placed in that column. This warning should follow requirements below:

- When the task is not applicable to the column, the column background should be changed to red.
  - When the task is applicable to the column, the column background should be changed to green.
- 2.2 Although warning the user about wrong operations, it should be possible to drop the task onto a not applicable column, but when this happens the task should immediately go back to its previous column.
  - 2.3 The cursor should be changed to “MOVE” when dragging a task and should return to “POINTER” when not dragging.
  - 2.4 The number of tasks should be displayed in each column header. This information should be updated every time a task is moved, added or deleted.
  - 2.5 When the task is dropped onto an applicable column, its data, including its new status, should be saved into the local storage database.
  - 2.6 A task dropped onto the “In-Progress” column needs to have its “Start Time” and a “Responsible” set and displayed. “Start time” should be set accordingly to the system’s current date and time. “Responsible” should be input from user.
  - 2.7 A task dropped onto the “Done” column needs to have its “End Time” set and displayed. This data should be set accordingly to the system’s current date and time.
  - 2.8 The Start Time and End Time will be displayed in format “dd/mm/yyyy hh:mm:ss”.

### 3.0 Edit Task

- 3.1 To edit a task, the user can click on the task’s EDIT ICON and then change the task’s data. For example, a task “In-Progress” cannot have its End Time edited. When a task is in EDIT mode SAVE and CANCEL icons need to be displayed and the actions icons (edit task, delete task, end task) need to be hidden. The save and cancel icons should replace the action icons.
- 3.2 All fields are required. It is necessary to use validation in order to ensure the correct data type is entered for each field.
- 3.3 When editing a task in the “Done” column, the application needs to validate that “End Time” is later than “Start Time”.

### 4.0 Delete Task

To delete a task, click on its “DELETE ICON”. Tasks placed in the “In-Progress” column CANNOT be deleted. When the “DELETE ICON” is clicked, a confirmation message should be displayed to the user in order to confirm the deletion. When user confirms, the task should be removed using an animation, shrink or fade out, and its data should be removed from the database.

### 5.0 End Task

It should be possible to end a task ONLY from the “In-Progress” column by clicking on the “END ICON”. When the user clicks on the “END ICON”, the task should automatically be displayed in the “DONE” column. An ended task needs to have its “End Time” set. This data should be set accordingly to the system’s current date and time.

### 6.0 Ordering tasks in each column

Using the mouse to drag and drop, it should be possible to order the tasks inside each column. The order of the tasks should be saved into the local storage database and this value should be in the "SortOrder" column.

### 7.0 Save operations in the database

All information relating to the tasks should be saved into the local storage database.

### 8.0 Save operations in the database

8.1 Apply ALT attribute to all application images.

8.2 When CSS is disabled, the visual hierarchy remains intact.

## INSTRUCTIONS TO THE COMPETITOR

Save the files of your application in directory on your desktop computer "**TaskManager\_CompetitorID**", where **CompetitorID** is the ID assigned to you during the competition day.

**ATTENTION:** You are encouraged to use the functions of open source libraries or frameworks provided to solve the proposed requirements. The application will be evaluated using Chrome and Firefox.

## MATERIALS PROVIDED

ITEM	DESCRIPTION
jQuery	JavaScript library
jQuery UI	JavaScript library
Vue.js	JavaScript Framework
React.js	JavaScript Framework

## MARKING SCHEME SUMMARY

SECTION	CRITERION	JUDGEMENT MARKS	MEASUREMENT MARKS	TOTAL
P1	Clientside implementation of open source libraries and frameworks	0.0	32.0	32.0
P2	Usability and accessibility	6.0	12.0	18.0
<b>Total</b>		<b>6.0</b>	<b>44.0</b>	<b>50.00</b>