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## LOMBA KOMPETENSI SISWA (LKS)-SMK TINGKAT NASIONAL XXX TAHUN 2022

### **BIDANG LOMBA**

Teknologi Informasi Piranti Lunak untuk Bisnis (IT Software Solution for Business)

ISWA SM

#### A. General Requirements:

- Every module should be provided with proper validation and informative error messages.
- Scrollbar should be visible whenever there are lists or views that occupy more than one screen.
- Use ISO compliant date format YYYY-MM-DD for date.
- Use proper naming conventions for variables, functions, or filename.
- By default, form should be displayed in the centre of the screen.
- Whenever a form or dialog is in focus, other form functionality should be disabled.
- Wireframe given in the test project is for reference only. Modifications are allowed if they do not affect the performance and functionality of the requested features.
- Pay attention to given working durations. The time given includes the duration for the submission process. Additional time will not be added during normal conditions.

#### **B.** Test Projects Details

Module Name	Estimated Duration (Hours)	Requirements
Desktop Application	2 - 4	<ul> <li>Import database and its content from external sources.</li> <li>Create windows forms and its components based on given requirements.</li> <li>Validating user input.</li> <li>Role validation and menu access restriction based on login data.</li> <li>Show, insert, update, or delete records from the database.</li> <li>Create windows forms and its components based on given requirements.</li> <li>Join tables query.</li> <li>Aggregate query.</li> <li>Display data using charts.</li> <li>Searching and filtering.</li> <li>Datagridview manipulation.</li> </ul>
Mobile Application	2 - 4	<ul> <li>Create a mobile application form and its component based on given requirements.</li> <li>Show, insert, update, or delete records from external sources (database or API).</li> <li>Searching and filtering.</li> <li>Export data to external files.</li> <li>Show Image from others resource.</li> <li>Animation using canvas.</li> <li>User Authentication and Token Management</li> </ul>

<b>Module Name</b>	Estimated Duration (Hours)	Requirements
Web Application	2 - 4	<ul> <li>Analysing given requirements and converting them into database design.</li> <li>Provide all Restful API endpoints according to the endpoint contract given.</li> <li>Produce the right logic for each endpoint.</li> <li>Provide the right Restful API endpoint including headers, params, request body, and method also with the return object suitability (http status code, response header, response body).</li> <li>Provide the consumable response for each negative case that might occur.</li> <li>Searching and filtering.</li> <li>User Authentication and Token Management</li> </ul>

