SDC PRD Standard

Brief description:

This PRD aims to show an example of the SDC PRD standard. This document is a small piece of a large PRD on which the team has spent a few months of hands-on work.

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Useful URLs

Document status	APPROVED
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URL 2	
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(% of person's working time that currently is being spent on this project)

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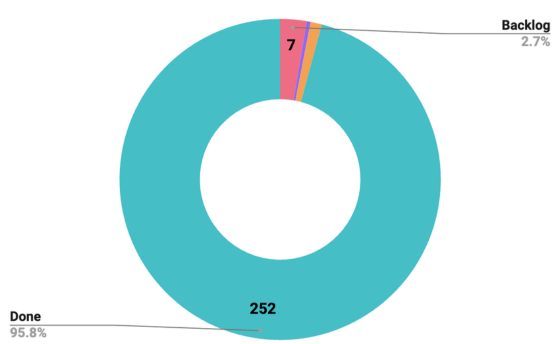
Jira Tickets



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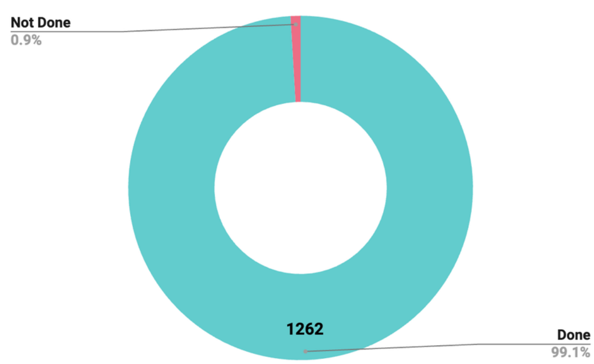

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Requirements

	Category	Requirement
1	General (technical details)	The project "X ERP" is a complex Enterprise Resource Planning system (ERP system) that will be installed in an existing organization (X) for over five thousand users. Still, the system architecture should be easily scalable to adjust to any number of future users with no downtime. The system will be web-based, supporting all modern browsers (MS Edge, Chrome, Firefox, Safari). The mobile support of the system is not considered in the MVP. This means we consider the system users to log in from desktop workstations only. The smallest screen size the system supports is Full HD (1920x1080). Any screen with a lower resolution might deliver a poorer experience to the user. The system will be used internally in an air-gapped network, meaning there won't be any Internet connection, and the system will have to work autonomously. The existing on-site Microsoft Active Directory (AD) will cover the system's authentication. The system will be available in Arabic (default) and English. There are three system user types: admins, HR team members, and regular employees. Each user type has its set of privileges and accesses. Still, for HR and regular employees, those privileges can be modified in the ERP User Management System (UMS).
2	General (business aspects)	A brief explanation of the project's business value: The customer (X) has a lot of established processes and workflows within their organization. Most of those workflows and processes have been developed and maintained over decades. Almost every workflow starts with submitting a different form, requiring different position holders to review and process the request. The nature of requests varies from a simple day-off, or salary review continued with much more complex requests for business trips to different countries, training requests, etc. From the system perspective, the lower layer is a regular employee (95% of all system users) who gets involved in different activities and has submitted/pending requests of different natures. Then comes a middle layer - HR team members (4% of all system users). They are the ones who maintain the workflows, the requests, and the forms. The highest level - the admins (<1% of all system users) - maintain the core of the ERP - the environment in which the HR team can create different workflows and forms. Given the specificity of the customer's business, any form or workflow, including its steps, and the people responsible for those, can be changed on a daily/weekly basis and affect the organization. This is why there is an acute need for a scalable ERP system. The reason why the customer wants a custom solution and does not consider a 3rd party, ready-made solution is because of three factors: • All the 3rd party enterprise ERP systems have limitations which is a significant impasse for the customer; • The number of regular changes in the customer's processes doesn't allow it to be safe when assessing what exactly is being affected by a specific change. The custom system will allow for creating predictable behavior that will be easy to understand and use in risk assessment;

		• The nature of the customer's business doesn't allow relying on 3rd party products on a scale of a whole organization. We can also mention that the customer once already used a top-grade 3rd party ERP solution. Still, it has brought them to an impasse where neither they nor the support team of the 3rd party ERP system could guarantee risk-free results on system changes.
3	General (default pages available in the system)	The ERP system has three types of pages: • Builder pages; These pages allow authorized users to modify the ERP environment in which the organization's employees operate. • Management pages; These pages allow detailed configuration of different nuances in the ERP system. • Public pages. These are the pages that are available for all employees that have access to the ERP. Builder pages: • Field builder; This page allows the creation and maintenance of the fields that will further be used to compose the forms. The fields from the field builder library will also be used in the profile builder and the rule builder. The idea of formalizing the building of system fields aims to ensure flawless statistical data aggregation over time. • Form builder; This page allows the creation and maintenance of the forms that will further be used in composing the workflows. A form is the first and mandatory component of any workflow. • Workflow builder; This page allows the creation and maintenance of the workflows that will be placed on different pages of the ERP. For the end-user, the workflows will look like an action button (e.g., "Request additional information", "Request a vacation", etc.). Under each button, the admin will configure the form that should be filled out and the steps that the request should go through. The admin will also input the positions (roles of people in the organization) who will be responsible for reviewing and processing each step (e.g., "Confirm", "Reject", and others). • Page builder; This page allows the creation and maintenance of the pages of the ERP. The pages will be visible to the employees in accordance with the configured accesses. Use case example: The HR team can request an admin to create a page called "2020 urgencies" and place there a few workflows in the form of buttons called "Report COVID incident", "Request for medical assistance", and "Request for urgent financial support". Then the admin makes the page available for all the employees in the organization. • Profile builder; This page allows the creation and maintenance of the organization's profile blueprints (types). For example, every employee has a profile with all the details. The "Profile builder" defines the fields and sections that should be generic for all the employees in the organization. The same builder is used to create groups (e.g., "department", "division") and organizations (e.g., partner organizations). Management pages: • Profile Management; This page allows editing of all the existing employees, groups, and organizations and adding new ones. • Organization Chart Management; This page allows the creation and maintenance of user groups (e.g., "Department", "Team", "Division") as well as hierarchical relations between those. • Rule Engine; This page allows the creation and maintenance of different rules in the system. In short, rules allow tracking specific value changes in different fields and other properties of the system. The triggered rule notifies appropriate people about the event fact. • Allowance management; This page allows the creation and maintenance of different allowances available for the employees. • Training and courses management; This page allows seeing the training details of all the employees in the organization. • Time attendance management; This page allows for creating and maintaining employee work schedules and other time attendance rules. Public pages: • Helpdesk; On this page, the employees can see announcements and other information placed by the HR team. • Tasks and Notifications; On this page, the employees can see notifications regarding the actions required on different workflows where they are involved. • Time Attendance; • Training and Courses; • Org. Chart; • My Profile; There are also a few administrative tools accessible for those who have been specially authorized: • Reports; This page allows the generation of reports using any data available in the system. • User management system (UMS); This page allows privilege and access management for all the system users (including all the employees). • Audit log; This page allows browsing for any activity conducted by any system user.
4	Mainframe	The system's mainframe is available for any employee with access to the ERP system. The mainframe consists of a navigation bar and the page content area. The navigation bar contains the links to all the pages available for the user authenticated to the system. Also, as part of the mainframe, we consider viewer pages: • Profile view; When any user of the ERP opens the profile of an entity (employee, group, organization), the profile viewer is opened. Here the user can see all the available information about a given entity. • Workflow view. When any user of the ERP opens the workflow from "Tasks and Notifications", the workflow viewer is opened. The system should allow users to log out from the system via an easily accessible "Log out" button.
5	Field Builder	On this page, the system should show the table where each row represents a single field, and the columns show its properties. The columns are: • Field name; It is being filled in when creating a new field. • Internal name; It is being filled in when creating a new field. • Field type; It is configured when creating a new field. • Creation date; Indicates the date and time when a given field was created. • Last modified date; Indicates the date and time when a given field was last time modified. • Used in forms; Indicates the number of forms where a given field has been placed. If the number is more than 0, it should be clickable. On click, the system should show the form names where a given field was used. The user should be able to open a preview for each form in the list. The user should also be able to open a given form in edit mode. • # of values. The number of values that the field contains. Given that some of the field types require custom input (Single line, Multi-line, File upload, Number, Date-time, Header title) for them, this column will show a "N/A" sign, which on hover will show a tooltip saying "Not applicable to this field type". Each column should have filtering and sorting options (ascending - descending). Each row on hover should show three actions: • Preview; It should open a preview of the field. The user should be able to see and interact with the field and how it works in the forms where it is placed. This means that if the field has predefined values, the user should be able to see/select those. • Edit; It should open a given field in edit mode. • Remove. This action becomes available only if a given field is not used in any form. Otherwise, the button should be unavailable, and on hover should say, "Unable to remove the field that is currently used in the form." The user should be able to search within the group of fields using field name or label name. The user should also be able to create new fields via the appropriate "Create new field" button. When creating a new field, the user should select the field type, fill in field properties, and configure it. The field types have two categories:

- “Predefined fields” with the tooltip saying, “These fields must contain predefined values so that the employee will be selecting the options from the list of existing ones.”
- “Custom-input fields” with the tooltip saying, “These fields cannot contain predefined values, so the employee will have to input the data manually.”

The predefined field types are:

- Dropdown;
  To configure this field, the user should input at least one value, with a top limit of 250. The user should also specify the mechanism for value sorting. The sorting mechanisms are “A-Z” (default) and “Custom,” which are automatically selected anytime when the user manually reshuffles any of the values in the list.
- Radio;
  For this field, the system uses the radio button component. To configure this field, the user should input at least two values, with a top limit of 3. The positioning of the options can be modified.
- Checkbox.
  To configure this field, the user should input at least one value, with a top limit of 50. The positioning of the options can be modified.

The custom-input field types are:

- Single line;
  This is a single-line alphanumeric input field. To configure this field, the user should input the placeholder text. The character limit should be 60 characters.
- Multi-line;
  This is a multi-line alphanumeric input field. To configure this field, the user should input the placeholder text. The character limit should be 720 characters.
- File upload;
  This is a file attachment/upload field. To configure this field, the user should specify which file format the system should accept for uploading. The available file formats are:
  - Documents (.docx, .doc, .xls, .xlsx, .pdf, .zip, .rar, .ppt, .pptx);
  - Media (all photos and video file extensions);
  - Any (meaning that any format file is possible to upload. These three options should be multi-selectable. Still, when “Any” is selected, the “Documents” and “Media” should be disabled.
  The maximum file size for any type should be 30 Mb.
- Number;
  This is a numeric input field. To configure this field, the user should specify the lower and upper limits in the “Min” and “Max” appropriate numeric fields. If both fields are left empty, the field will accept any 50-digit number. For limit fields, the system should show the label “Allowed number range” with the tooltip saying, “You can specify the limitations for this input field. Leaving it blank will let the user input any number.”
- Date-time;
  This is a date-time selector component. To configure this field, the user should select the field format and specify any date range limits (if any). The field formats are:
  - Date and Time;
  It will show both date and time in the format “month/day/year/hour/minute/second.”
  - Date only;
  It will show the date only in the format “month/day/year.”
  - Time only;
  It will show time only in the “hour/minute/second format.”

  For date-range limits, the system should show a tooltip with the text saying, “This will limit the date selection ability of the user to a specified date range.”
- Header title.
  This field is used as a header at the top-right or top-left part of the form. In most cases, this component is used to place a logo. To configure this field, the user should upload an image (max. 5Mb), then (optionally) input the text in the multi-line input field, and then specify whether they want this field to be on the top-right or top-left of the form. When “top left” is selected, the text should appear after the image (from left to right). When “top right” is selected, the text should appear before the image (from left to right).

Additionally, for each field type, the user inputs two mandatory field properties:

- Internal name;
  This field should be unique in the system, serving as an indicator for the users to distinguish fields with the same field names. For example, the user created three dropdown fields named “Nationality” and used those in three different forms. To distinguish those when generating reports, the internal name of the first field was “Nationality in the registration form”, in the second, “Nationality in educational allowance request”, and in the last one, “Nationality in annual leave request”. Thus, while the names of all those fields are the same, the internal name allows the user to generate accurate reports per workflow they’re interested in, rather than guessing which “Nationality” field was used in which form and workflow.
  The tooltip text for the internal name on the hover should say, “This name is used to distinguish between the fields with the same name. It’s recommended to use exact names like “Used in the registration form on the page ‘Education.’”. The character limit for this field is 60.
- Label;
  This field allows us to write the label indicator that will appear next to the field. The character limit for this field is 36.

The system should allow the creation of field groups - a few fields with configured parent-child relations. This relation means that while the parent field is not selected, its child field is disabled. One parent field can have multiple children. The same parent field can be a child to another parent field. The user should be able to name the field group, so they can easily find it in the field library later.

Upon finalizing the creation of the field, the user should always see the preview of it. The preview should be interactive, meaning the user can play with it, change values, input data, etc. Changing anything in the field configuration should reset the field preview.

Once the field has been selected and configured, the user can create it by clicking the “Create” action button. The user can cancel the creation process via the “Cancel” button.

The page should have a search bar with a placeholder saying, “Search in field names and internal names”. Regardless of whether the search is applied, the user should be able to see the number of shown results.

The page should have pagination where the user can switch between pages and regulate the limit of fields shown per page (20 - 50 (default) - 100).

There is a list of built-in system fields to ensure the smooth and coherent work of the ERP system. Having them ensures users won’t create duplicates for already existing data entities. The list of these fields:

- Full name (En);
  Non-editable. “Single line” type field.
  Tooltip: “This field is automatically filled in using the applicant’s profile data when used in the form.“
- Full name (Ar);
  Non-editable. “Single line” type field.
  Tooltip: “This field is automatically filled in using the applicant’s profile data when used in the form.”
- Position;
  Editable. “Dropdown” type field.
  Tooltip: “This field is automatically filled in using the applicant’s profile data when used in the form.“
- Profile status;
  Editable. It can’t be used in forms.
  Tooltip: “This field is used in the employee profile and can’t be used anywhere else.”
  This field has three built-in, non-editable values:
  - Active;
  - Vacation;
  - Removed.
- Profile image;
  Non-editable. “File upload (Media)” type field.
  Tooltip: “This field is automatically filled in using the applicant’s profile data when used in the form.“
- Email;
  Non-editable. “Single line” type field.
  Tooltip: “This field is automatically filled in using the applicant’s profile data when used in the form.“
- Phone number;
  Non-editable. “Single line” type field.
  Tooltip: “This field is automatically filled in using the applicant’s profile data when used in the form.“
- Direct manager.
  Non-editable. “Single line” type field.
  Tooltip: “This field is automatically filled in using the applicant’s profile data when used in the form.“
  The data for this field is being fetched from the org. chart relations of an applicant. For example, if an applicant is in a group called “Engineering Division 2”, then the system will fetch the name of the manager of that group. Given that the same employee can be involved in multiple groups, the system should fetch each group's managers' names.
- Group type;
  Non-editable. “Single line” type field.
  Tooltip: “This field is automatically filled in using the applicant’s profile data when used in the form.“
- Group name;
  Non-editable. “Single line” type field.
  Tooltip: “This field is automatically filled in using the applicant’s profile data when used in the form.“.
- Group manager;
  Non-editable. “Dropdown” type field.
  Tooltip: “This field is automatically filled in using the applicant’s profile data when used in the form.“
- Group deputy manager;
  Non-editable. “Dropdown” type field.
  Tooltip: “This field is automatically filled in using the applicant’s profile data when used in the form.“

There should also be one built-in field group called “Training and Courses”. It should contain the following fields:

		• Training center name; Editable. “Dropdown” type field. Parent field to “Training type” field. • Training type; Editable. “Dropdown” type field. Parent field to “Training status” field. • Training date; Editable. Date-range selector field. Parent field to “Training type” field. • Training status. Editable. It can’t be used in forms.

User interactions and design

Assets and UI Sources	

	Category	Visuals	Notes and guidelines
1			
2			