

LAWYER ERP Development Specification Document

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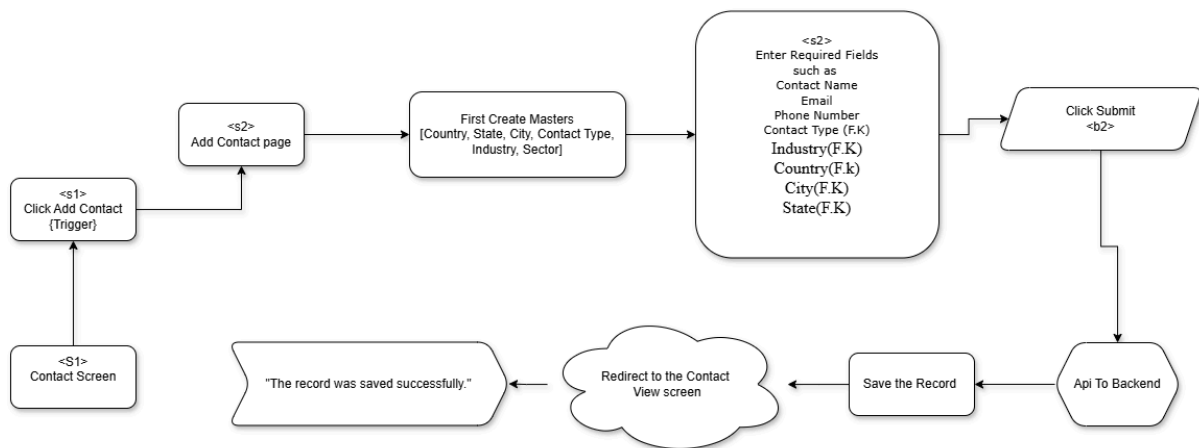
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1. Process Flow and Navigation

1.1 Use Case List (System Processes) and Required Flow Diagrams

Module	Use Case ID	Use Case Description	Flow Diagram Required
Contacts	UC-001	Create Contact	Yes
Country Management	UC-002	Manage Countries	Yes
State Management	UC-003	Manage States	Yes
City Management	UC-004	Manage Cities	Yes
Currency Management	UC-005	Manage Currencies	Yes
Country Code Management	UC-006	Manage Country Codes	Yes
Industry Management	UC-007	Manage Industries	Yes
Sector Management	UC-008	Manage Sectors	Yes
Known Relationships	UC-009	Manage Known Relationships	Yes
Events Management	UC-010	Manage Events	Yes
Proposal Management	UC-011	Manage Proposals	Yes

1.2 Flow Diagram for System Processes



2. Process-wise Details: Tables, Screens, Fields, and Validation Functions

2.1 Use Case: Create Contact (UC-001)

2.1.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
Contact Form	Contact Name	Text	Mandatory	N/A	No
	Contact Title	Text	Optional	N/A	No
	Email	Email	Mandatory, valid email format	N/A	No
	Contact Number	Number	Optional, only digits	N/A	No
	Organization Name	Text	Optional	N/A	No
	Sector	Dropdown	Optional, foreign key from SectorMaster table	SectorMaster	No
	Industry	Dropdown	Mandatory, foreign key from IndustryMaster table	IndustryMaster	No
	Organization Turnover	Integer	Optional	N/A	No

	Organization Employee Size	Integer	Optional	N/A	No
	Contact Type	Dropdown	Mandatory, foreign key from ContractType table	ContractType	No
	Contact Role	Dropdown	Optional, foreign key from Role table	Role	No
	Country	Dropdown	Mandatory, foreign key from Country table	Country	No
	City	Dropdown	Mandatory, foreign key from City table, depends on selected state	City	No
	State	Dropdown	Mandatory, foreign key from State table, depends on selected country	State	No
	Address	Text Area	Optional	N/A	No
	Known Relationships	Multiselect	Optional, many-to-many relationship with KnownRelationships table	KnownRelationships	Yes
	Created By	Foreign Key	Mandatory, foreign key from User table	User	No
	Created At	DateTime	Auto-generated, timestamp of record creation	N/A	No
	Updated By	Foreign Key	Optional, foreign key from User table, updates on data modification	User	No
	Updated At	DateTime	Auto-generated, timestamp of record update	N/A	No

2.1.2 Field Validation Functions for Create Contact

Field Name	Validation Function	Error Message
Contact Name	validateName()	"Contact Name is mandatory."
Email	validateEmail()	"Please enter a valid email address."
Contact Number	validateNumber()	"Contact Number must contain only digits."
Industry	validateIndustry()	"Please select an Industry."
Contact Type	validateContactType()	"Please select a Contact Type."
Country	validateCountry()	"Please select a Country."
State	validateState()	"Please select a State based on the selected Country."
City	validateCity()	"Please select a City based on the selected State."
Known Relationships	validateRelationships() ()	"Please select at least one Known Relationship."

2.1.3 Table Mapping for UC-001

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Contacts	Contact_ID	INT	Primary Key	N/A	N/A
	Contact_Name	VARCHAR	Not Null	N/A	N/A
	Contact_Title	VARCHAR	Null	N/A	N/A
	Email	VARCHAR	Not Null, Unique	N/A	N/A
	Contact_Number	INT	Null	N/A	N/A
	Organization_Name	VARCHAR	Null	N/A	N/A
	Sector_ID	INT	Null	SectorMaster.Sector_ID	Direct(Mode 1)

	Industry_ID	INT	Not Null	IndustryMaster.Industry_ID	Direct(Mode 1)
	Organization_Turnover	INT	Null	N/A	N/A
	Organization_Employee_Size	INT	Null	N/A	N/A
	Contact_Type_ID	INT	Not Null	ContractType.Contact_Type_ID	Direct(Mode 1)
	Contact_Role_ID	INT	Null	Role.Role_ID	Direct (Mode 1)
	Country_ID	INT	Not Null	Country.Country_ID	Direct (Mode 1)
	State_ID	INT	Not Null	State.State_ID	INDirect (Mode 2)When a country is selected, the related states should be displayed in the dropdown menu.
	City_ID	INT	Not Null	City.City_ID	INDirect (Mode 2)When a State is selected, the related City should be displayed in the dropdown menu.
	Address	VARCHAR	Null	N/A	N/A
	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)
	Created_At	DATETIME	Not Null	N/A	N/A
	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)

	Updated_At	DATETIME	Null	N/A	N/A
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2.1.4 Masters Section

Master Name	Screen Name	Table Name	Description
Sector Master	Sector Management	SectorMaster	Stores different sectors related to organizations.
Industry Master	Industry Management	IndustryMaster	Stores different industries related to organizations.
Contract Type Master	Contract Type Management	ContractType	Stores different types of contacts, e.g., Client, Staff, etc.
Role Master	Role Management	Role	Stores different roles that contacts can have within their organization.
Country Master	Country Management	Country	Stores list of all countries.
State Master	State Management	State	Stores list of all states within a country.
City Master	City Management	City	Stores list of all cities within a state.
Known Relationships Master	Known Relationships Management	KnownRelationships	Stores list of known relationships associated with the organization, facilitating networking opportunities.

2.2.5. Triggers and Actions

Trigger Name	Trigger Type	Action Initiated	Example
On Form Submission	Save Data	Save to Users table	Create Contact
On Field Change	Validate Input	Check Email Format	Email Field

2.2.6. Aggregation of Components

Component Type	Component Name
Tables	Contacts,Contact Type ,Country Master , State Master,City Master,Industry Master and Sector Master
Screens	Contacts Create,Contact Type Create,Country Master Create , State Master Create ,City Master Create ,Industry Master Create and Sector Master Create
Fields	Contact_ID, Contact_Name, Contact_Title, Email, Contact_Number, Organization_Name, Sector_ID, Industry_ID, Organization_Turnover, Organization_Employee_Size, Contact_Type_ID, Contact_Role_ID, Country_ID, State_ID, City_ID, Address, Created_By, Created_At, Updated_By, Updated_AtExt(Country,State,City,Contact Type, Industry,Sector..)
Buttons	Submit, Cancel
Pop-Up Messages	Success, Error
Microservices	Payment Gateway, Notification Service

2.2.7. Microservices and Custom Functions

Microservice Name	Purpose	API Endpoint	Expected Inputs/Outputs
Create_contact,Create_country, Create_contact_type,Create_state.Create_city,Create_industry,Create_sector,Known Relationships	Create	/api/lawyer_erp/	JSON Request/Response

Known Relationships NOTES:

When adding a "Known Relationship" as a Many-to-Many field while creating a contact, you should first save the data for all other fields. After submission, save the Many-to-Many field, and then, using the Known Relationship list ID, save the contact.

Country* State* City*

---Select Country--- ---Select State--- ---Select City---

Address

Name Email Phone Number

Name Email Phone Number

submit Cancel

2.2 Use Case: Manage Countries (UC-002)

2.2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalues
Country Form	Country Name	Text	Mandatory	N/A	No
	Description	Text Area	Optional	N/A	No
	Created By	Foreign Key	Mandatory, from User table	User	No
	Created Date	DateTime	Auto-generated	N/A	No
	Updated By	Foreign Key	Optional, from User table	User	No
	Updated Date	DateTime	Auto-generated	N/A	No

2.2.2 Field Validation Functions for Manage Countries

Field Name	Validation Function	Error Message
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Country Name	validateName()	"Country Name is mandatory."
Created By	validateUser()	"Created By field should be valid user."

2.2.3 Table Mapping for UC-002

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Country	Country_ID	INT	Primary Key	N/A	N/A
	Country_Name	VARCHAR	Not Null	N/A	N/A
	Description	VARCHAR	Null	N/A	N/A
	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)
	Created_At	DATETIME	Not Null	N/A	N/A
	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)
	Updated_At	DATETIME	Null	N/A	N/A

2.3 Use Case: Manage States (UC-003)

2.3.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalu e
State Form	Country	Dropdow n	Mandatory, foreign key from Country table	Country	No
	State Name	Text	Mandatory	N/A	No
	Description	Text Area	Optional	N/A	No
	Created By	Foreign Key	Mandatory, foreign key from User table	User	No
	Created Date	DateTime	Auto-generated, timestamp of record creation	N/A	No

	Updated By	Foreign Key	Optional, foreign key from User table, updates on data modification	User	No
	Updated Date	DateTime	Auto-generated, timestamp of record update	N/A	No

2.3.2 Field Validation Functions for Manage States

Field Name	Validation Function	Error Message
Country	validateCountry()	"Please select a Country."
State Name	validateName()	"State Name is mandatory."
Created By	validateUser()	"Created By field should be valid user."

2.3.3 Table Mapping for UC-003

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
State	State_ID	INT	Primary Key	N/A	N/A
	Country_ID	INT	Not Null	Country.Country_ID	Direct (Mode 1)
	State_Name	VARCHAR	Not Null	N/A	N/A
	Description	VARCHAR	Null	N/A	N/A
	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)
	Created_At	DATETIME	Not Null	N/A	N/A
	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)
	Updated_At	DATETIME	Null	N/A	N/A

2.4 Use Case: Manage Cities (UC-004)

2.4.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
City Form	State	Dropdown	Mandatory, foreign key from State table	State	No
	City Name	Text	Mandatory	N/A	No
	Description	Text Area	Optional	N/A	No
	Created By	Foreign Key	Mandatory, foreign key from User table	User	No
	Created Date	DateTime	Auto-generated, timestamp of record creation	N/A	No
	Updated By	Foreign Key	Optional, foreign key from User table, updates on data modification	User	No
	Updated Date	DateTime	Auto-generated, timestamp of record update	N/A	No

2.4.2 Field Validation Functions for Manage Cities

Field Name	Validation Function	Error Message
State	validateState()	"Please select a State."
City Name	validateName()	"City Name is mandatory."
Created By	validateUser()	"Created By field should be valid user."

2.4.3 Table Mapping for UC-004

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
City	City_ID	INT	Primary Key	N/A	N/A
	State_ID	INT	Not Null	State.State_ID	Direct (Mode 1)
	City_Name	VARCHAR	Not Null	N/A	N/A
	Description	VARCHAR	Null	N/A	N/A
	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)

	Created_At	DATETIME	Not Null	N/A	N/A
	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)
	Updated_At	DATETIME	Null	N/A	N/A

2.5 Use Case: Manage Currencies (UC-005)

2.5.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
Currency Form	Country	Dropdown	Mandatory, foreign key from Country table	Country	No
	Currency Name	Text	Mandatory	N/A	No
	Description	Text Area	Optional	N/A	No
	Created By	Foreign Key	Mandatory, foreign key from User table	User	No
	Created Date	DateTime	Auto-generated, timestamp of record creation	N/A	No
	Updated By	Foreign Key	Optional, foreign key from User table, updates on data modification	User	No
	Updated Date	DateTime	Auto-generated, timestamp of record update	N/A	No

2.5.2 Field Validation Functions for Manage Currencies

Field Name	Validation Function	Error Message
Country	validateCountry()	"Please select a Country."
Currency Name	validateName()	"Currency Name is mandatory."
Created By	validateUser()	"Created By field should be valid user."

2.5.3 Table Mapping for UC-005

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Currency	Currency_ID	INT	Primary Key	N/A	N/A
	Country_ID	INT	Not Null	Country.Country_ID	Direct (Mode 1)
	Currency_Name	VARCHAR	Not Null	N/A	N/A
	Description	VARCHAR	Null	N/A	N/A
	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)
	Created_At	DATETIME	Not Null	N/A	N/A
	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)
	Updated_At	DATETIME	Null	N/A	N/A

2.6 Use Case: Manage Country Codes (UC-006)

2.6.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalued
Country Code Form	Country	Dropdown	Mandatory, foreign key from Country table	Country	No
	Country Code	Text	Mandatory, unique, specific format (e.g., alpha-2, alpha-3)	N/A	No
	Description	Text Area	Optional	N/A	No
	Created By	Foreign Key	Mandatory, foreign key from User table	User	No

	Created Date	DateTime	Auto-generated, timestamp of record creation	N/A	No
	Updated By	Foreign Key	Optional, foreign key from User table, updates on data modification	User	No
	Updated Date	DateTime	Auto-generated, timestamp of record update	N/A	No

2.6.2 Field Validation Functions for Manage Country Codes

Field Name	Validation Function	Error Message
Country	validateCountry()	"Please select a Country."
Country Code	validateCountryCode()	"Country Code is mandatory and should follow the specified format."
Created By	validateUser()	"Created By field should be valid user."

2.6.3 Table Mapping for UC-006

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Country Code	Country_Code_ID	INT	Primary Key	N/A	N/A
	Country_ID	INT	Not Null	Country.Country_ID	Direct (Mode 1)
	Country_Code	VARCHAR	Not Null, Unique	N/A	N/A
	Description	VARCHAR	Null	N/A	N/A
	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)
	Created_At	DATETIME	Not Null	N/A	N/A
	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)

	Updated_At	DATETIME	Null	N/A	N/A
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2.7 Use Case: Manage Industries (UC-007)

2.7.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
Industry Form	Industry Name	Text	Mandatory	N/A	No
	Description	Text Area	Optional	N/A	No
	Created By	Foreign Key	Mandatory, from User table	User	No
	Created Date	DateTime	Auto-generated	N/A	No
	Updated By	Foreign Key	Optional, from User table	User	No
	Updated Date	DateTime	Auto-generated	N/A	No

2.7.2 Field Validation Functions for Manage Industries

Field Name	Validation Function	Error Message
Industry Name	validateName()	"Industry Name is mandatory."
Created By	validateUser()	"Created By field should be valid user."

2.7.3 Table Mapping for UC-007

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Industry	Industry_ID	INT	Primary Key	N/A	N/A
	Industry_Name	VARCHAR	Not Null	N/A	N/A
	Description	VARCHAR	Null	N/A	N/A

	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)
	Created_At	DATETIME	Not Null	N/A	N/A
	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)
	Updated_At	DATETIME	Null	N/A	N/A

2.8 Use Case: Manage Sectors (UC-008)

2.8.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
Sector Form	Industry	Dropdown	Mandatory, foreign key from Industry table	Industry	No
	Sector Name	Text	Mandatory	N/A	No
	Description	Text Area	Optional	N/A	No
	Created By	Foreign Key	Mandatory, foreign key from User table	User	No
	Created Date	DateTime	Auto-generated, timestamp of record creation	N/A	No
	Updated By	Foreign Key	Optional, foreign key from User table, updates on data modification	User	No
	Updated Date	DateTime	Auto-generated, timestamp of record update	N/A	No

2.8.2 Field Validation Functions for Manage Sectors

Field Name	Validation Function	Error Message
Industry	validateIndustry()	"Please select an Industry."
Sector Name	validateName()	"Sector Name is mandatory."

Created By	validateUser()	"Created By field should be valid user."
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2.8.3 Table Mapping for UC-008

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Sector	Sector_ID	INT	Primary Key	N/A	N/A
	Industry_ID	INT	Not Null	Industry.Industry_ID	Direct (Mode 1)
	Sector_Name	VARCHAR	Not Null	N/A	N/A
	Description	VARCHAR	Null	N/A	N/A
	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)
	Created_At	DATETIME	Not Null	N/A	N/A
	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)
	Updated_At	DATETIME	Null	N/A	N/A

2.9 Use Case: Manage Known Relationships (UC-009)

2.9.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalued
Known Relationship Form	Name	Text	Mandatory	N/A	No
	Email	Text	Optional, valid email	N/A	No
	Phone Number	Number	Optional, only digits	N/A	No
	Created By	Foreign Key	Mandatory, from User table	User	No

	Created Date	DateTime	Auto-generated	N/A	No
	Updated By	Foreign Key	Optional, from User table	User	No
	Updated Date	DateTime	Auto-generated	N/A	No

2.9.2 Field Validation Functions for Manage Known Relationships

Field Name	Validation Function	Error Message
Name	validateName()	"Name is mandatory."
Email	validateEmail()	"Please enter a valid email address."
Phone Number	validateNumber()	"Phone Number must contain only digits."
Created By	validateUser()	"Created By field should be valid user."

2.9.3 Table Mapping for UC-009

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
KnownRelationships	KnownRelationship_ID	INT	Primary Key	N/A	N/A
	Name	VARCHAR	Not Null	N/A	N/A
	Email	VARCHAR	Null	N/A	N/A
	Phone_Number	INT	Null	N/A	N/A
	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)
	Created_At	DATETIME	Not Null	N/A	N/A
	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)
	Updated_At	DATETIME	Null	N/A	N/A

2.10 Use Case: Manage Contact Type(UC-010)

2.10.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
Contact Type Form	Contact Type Name	Text	Mandatory	N/A	No
	Description	Text Area	Optional	N/A	No
	Created By	Foreign Key	Mandatory, foreign key from User table	User	No
	Created Date	DateTime	Auto-generated, timestamp of record creation	N/A	No
	Updated By	Foreign Key	Optional, foreign key from User table, updates on data modification	User	No
	Updated Date	DateTime	Auto-generated, timestamp of record update	N/A	No

2.10.2 Field Validation Functions for Manage Contact type

Field Name	Validation Function	Error Message
Contact Type Name	validateName()	"Contact Type Name is mandatory."
Created By	validateUser()	"Created By field should be valid user."

2.10.3 Table Mapping for UC-008

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Contact Type	contact_type_ID	INT	Not Null	Contact_Type.contact_type_ID	Direct (Mode 1)
	Contact_Type_Name	VARCHAR	Not Null	N/A	N/A

	Description	VARCHAR	Null	N/A	N/A
	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)
	Created_At	DATETIME	Not Null	N/A	N/A
	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)
	Updated_At	DATETIME	Null	N/A	N/A

1. Events -(UE-001)

1. Process Flow and Navigation

1.1 Use Case List (System Processes) and Required Flow Diagrams

Module	Use Case ID	Use Case Description	Flow Diagram Required
Events	UE-001	Create Events	Yes
Known Relationships	UC-009	Manage Known Relationships	Yes

1.2 Flow Diagram for System Processes

2. Process-wise Details: Tables, Screens, Fields, and Validation Functions

2.1 Use Case: Create Events(UC-001)

2.1.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
Event Form	Title	Text	Mandatory	N/A	No
	description	Text	Optional	N/A	No

	target_group	Email	Mandatory, ManyToManyField From IndustryMaster Table	IndustryMaster	Yes
	location	Text	Optional	N/A	No
	notes	Text	Optional	N/A	No
	capacity	Number	Optional	N/A	No
	organizer	Text	Optional	N/A	No
	contacts	Positive Integer	Mandatory	N/A	No
	approve	Check Box	default=False	N/A	No
	date	Data	Mandatory	N/A	No
	time	Time	Mandatory	N/A	No
	fee	Decimal	Optional	N/A	No
	budget	Decimal	Optional	N/A	No
	status_1	Dropdown	Mandatory, choices=STATUS_CH OICES	N/A	No
	Created By	Foreign Key	Mandatory, foreign key from User table	User	No

	Created At	DateTime	Auto-generated, timestamp of record creation	N/A	No
	Updated By	Foreign Key	Optional, foreign key from User table, updates on data modification	User	No
	Updated At	DateTime	Auto-generated, timestamp of record update	N/A	No

2.1.2 Field Validation Functions for Create Events

Field Name	Validation Function	Error Message
Title	validateName()	"Title is mandatory."
Date	validateDate()	"Date is mandatory."
Contacts	validateNumber()	"Contacts is mandatory."
Time	validateTime()	"Time is mandatory."
Fee	validateFee()	"Fee must be a valid decimal number."
Budget	validateBudget()	"Budget must be a valid decimal number."
Status_1	validateStatus()	"Please select a valid status."

2.1.3 Table Mapping for UE-001

Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
id	INT	Primary Key	N/A	N/A
title	VARCHAR(255)	Not Null	N/A	N/A

description	TEXT	Null	N/A	N/A
target_group	ManyToManyField	Null	IndustryMaster	Direct (Mode 1)
location	VARCHAR(255)	Not Null	N/A	N/A
notes	TEXT	Null	N/A	N/A
capacity	INT	Null	N/A	N/A
organizer	VARCHAR(255)	Null	N/A	N/A
contacts	PositiveInteger	Max length 12	N/A	N/A
approve	BOOLEAN	Default False	N/A	N/A
date	DATE	Not Null	N/A	N/A
time	TIME	Not Null	N/A	N/A
fee	DECIMAL(10, 2)	Null	N/A	N/A
budget	DECIMAL(15, 2)	Null	N/A	N/A

status_1	CHAR(20)	Not Null	N/A	N/A
created_by	INT	Not Null	User.User_ID	Direct (Mode 1)
created_at	DATETIME	Not Null	N/A	N/A
updated_by	INT	Null	User.User_ID	Direct (Mode 1)
update_at	DATETIME	Null	N/A	N/A

2.1.4 Masters Section

Master Name	Screen Name	Table Name	Description
Industry Master	Industry Management	IndustryMaster	Stores different industries related to organizations.

2.2.5. Triggers and Actions

Trigger Name	Trigger Type	Action Initiated	Example
On Form Submission	Save Data	Save to Events table	Create Events
On Field Change	Validate Input	Check Email Format	Email Field

2.2.6. Aggregation of Components

Component Type	Component Name
Tables	Events and Industry Master

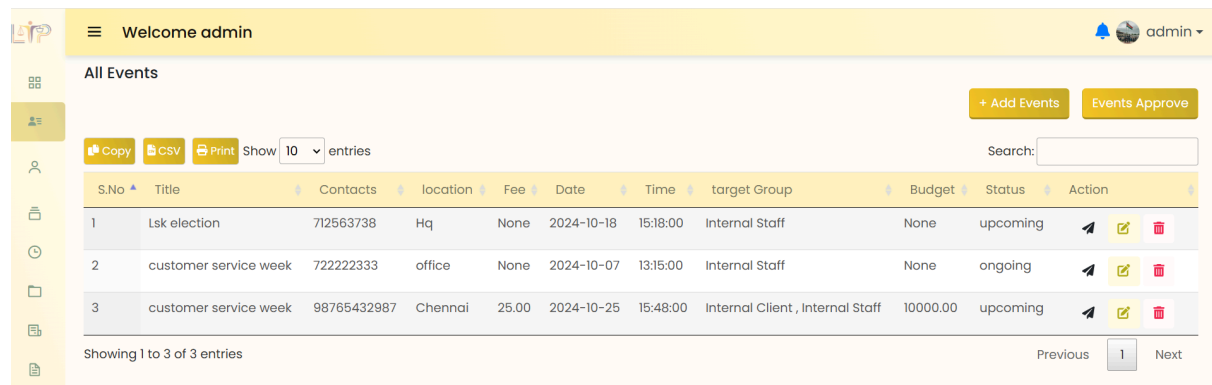
Screens	Events Create and Industry Master Create
Fields	title, description, target_group, location, notes, capacity, organizer, contacts, approve, date, time, fee, budget, status_1
Buttons	Submit, Cancel
Pop-Up Messages	Success, Error
Microservices	Create_Events ,Create_industry

2.2.7. Microservices and Custom Functions

Microservice Name	Purpose	API Endpoint	Expected Inputs/Outputs
Create_Events and Create_industry	Create	/api/lawyer_erp/	JSON Request/Response

Notes:

When the "Send Mail" icon is clicked, an email will be sent to the selected target group contacts from the system.



The screenshot displays the LRP Admin Dashboard. The top navigation bar includes the LRP logo, a 'Welcome admin' message, and a user profile dropdown for 'admin'. The main content area is titled 'All Events' and features two buttons: '+ Add Events' and 'Events Approve'. Below these are utility buttons for 'Copy', 'CSV', and 'Print', along with a 'Show 10 entries' dropdown and a search bar. The central table lists events with columns for S.No, Title, Contacts, location, Fee, Date, Time, target Group, Budget, Status, and Action. Three events are visible: 'Lsk election', 'customer service week', and another 'customer service week'. Each row has a 'Send Mail' icon in the Action column. At the bottom, it shows 'Showing 1 to 3 of 3 entries' and pagination controls for 'Previous', '1', and 'Next'.

S.No	Title	Contacts	location	Fee	Date	Time	target Group	Budget	Status	Action
1	Lsk election	712563738	Hq	None	2024-10-18	15:18:00	Internal Staff	None	upcoming	
2	customer service week	722222333	office	None	2024-10-07	13:15:00	Internal Staff	None	ongoing	
3	customer service week	98765432987	Chennai	25.00	2024-10-25	15:48:00	Internal Client , Internal Staff	10000.00	upcoming	

1 Proposal

1.1 Proposal Case List (System Processes) and Required Flow Diagrams

Module	Proposal Case ID	Proposal Case Description	Flow Diagram Required
Proposal	UP-001	Create Contact	Yes
Proposal Type	UP-002	Manage proposal Type	Yes
Template	UP-003	Manage Template Type	Yes
Document	UP-004	Manage proposal Type	Yes

1.2. Process-wise Details: Tables, Screens, Fields, and Validation Functions

2.1 Use Case: Manage Proposals (UP-001)

2.1.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
Proposal Form	Proposal Title	Text	Mandatory	N/A	No
	Organization	Text	Mandatory	N/A	No
	Organization Contact	Text	Mandatory	N/A	No
	Attachment	File Upload	Optional (allowed file types)	N/A	No
	Proposal Type	Dropdown	Mandatory, foreign key from ProposalType table	ProposalType	No
	Notes	Text Area	Optional	N/A	No
	Status	Dropdown	Mandatory, predefined options (Created, Approved, Sent, Converted)	N/A	No

	Created By	Foreign Key	Mandatory, from User table	User	No
	Created Date	DateTime	Auto-generated	N/A	No
	Updated By	Foreign Key	Optional, from User table	User	No
	Updated Date	DateTime	Auto-generated	N/A	No

2.1.2 Field Validation Functions for Create User Account

Field Name	Validation Function	Error Message
Proposal Title	validateTitle()	"Proposal Title is mandatory."
Organization	validateOrganization()	"Organization is mandatory."
Organization Contact	validateContact()	"Organization Contact is mandatory."
Proposal Type	validateProposalType()	"Please select a Proposal Type."
Status	validateStatus()	"Please select a Status."
Created By	validateUser()	"Created By field should be valid user."
Attachment	validateFile()	"Please upload a valid file type."

2.1.3 Table Mapping for UP-001

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Proposal	Proposal_ID	INT	Primary Key	N/A	N/A
	Title	VARCHAR	Not Null	N/A	N/A
	Organization	VARCHAR	Not Null	N/A	N/A
	Organization_Contact	VARCHAR	Not Null	N/A	N/A
	Attachment	VARCHAR	Null	N/A	N/A

	ProposalType_ID	INT	Not Null	ProposalType.ProposalType_ID	Direct (Mode 1)
	Notes	VARCHAR	Null	N/A	N/A
	Status	VARCHAR	Not Null	N/A	N/A
	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)
	Created_At	DATETIME	Not Null	N/A	N/A
	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)
	Updated_At	DATETIME	Null	N/A	N/A

2.1.4. Masters Section

Master Name	Screen Name	Table Name	Description
Proposal Type Master	Proposal Type Management	ProposalType	Stores different types of proposals.

2.1.4 Table Mapping for UP-002

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
ProposalType	ProposalType_Name	VARCHAR	Not Null	N/A	N/A
	Description	VARCHAR	Null	N/A	N/A
	Created_By	INT	Not Null	User.User_ID	Direct (Mode 1)
	Created_At	DATETIME	Not Null	N/A	N/A

	Updated_By	INT	Null	User.User_ID	Direct (Mode 1)
	Updated_At	DATETIME	Null	N/A	N/A

2.1.5. Triggers and Actions

Trigger Name	Trigger Type	Action Initiated	Example
On Form Submission	Save Data	Save to Proposal table	Create Proposal
On Field Change	Validate Input	Check file type	Attachment Field

2.1.6. Aggregation of Components

Component Type	Component Name	Tables
Screens	Proposal Create, Proposal Type Create	Proposal, ProposalType
Fields	Proposal_ID, Title, Organization, Organization_Contact, Attachment, ProposalType_ID, Notes, Status, Created_By, Created_At, Updated_By, Updated_At	
Buttons	Submit, Cancel	
Pop-Up Messages	Success, Error	

2.1.7. Microservices and Custom Functions

Microservice Name	Purpose	API Endpoint	Expected Inputs/Outputs
Create_proposal	Create a new Proposal	/api/lawyer_erp/	JSON Request/Response

Important Considerations

- **File Upload:** Ensure proper validation and security measures are in place for uploaded files.

- **Proposal Status Workflow:** Consider implementing a state machine to manage transitions between proposal statuses.
- **User Permissions:** Implement access control to restrict users from modifying or viewing proposals they shouldn't have access to.

Note: I've tried to be comprehensive, but please provide any specific information about your application's needs, and I'll be happy to tailor this documentation further.

1.1 Use Case List (System Processes) and Required Flow Diagrams

Module	Use Case ID	Use Case Description	Flow Diagram Required
Template Management	UC-001	Manage Templates	Yes
Document Management	UC-002	Manage Documents	Yes

1.2 Flow Diagram for System Processes

(Attach relevant flow diagrams for each process using tools like Lucidchart, Visio, or others.)

2. Process-wise Details: Tables, Screens, Fields, and Validation Functions

Use Case: Template Management (UC-001)

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalues
Template Management	Name	Textbox	Mandatory	None	No

Template Management	Content	Rich Text	Mandatory	None	No
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2.2 Field Validation Functions

Field Name	Validation Function	Error Message
Name	validateTemplateName()	"Template name is required."
Content	validateContent()	"Content cannot be empty."

2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Templates	template_id	VARCHAR(100)	Primary Key	None	None
Templates	name	VARCHAR(100)	Not Null	None	None
Templates	content	TEXT	Not Null	None	None
Templates	created_at	DATETIME	Auto-generated	None	None
Templates	updated_at	DATETIME	Auto-updated	None	None

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalued
Document Management	Content	Text Area	Mandatory	None	No

2.2 Field Validation Functions

Field Name	Validation Function	Error Message
Content	validateDocument()	"Document content is required."

2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Documents	document_id	VARCHAR(100)	Primary Key	None	None
Documents	content	TEXT	Not Null	None	None
Documents	created_at	DATETIME	Auto-generated	None	None
Documents	updated_at	DATETIME	Auto-updated	None	None

2.4 Masters Section

Master Name	Screen Name	Table Name	Description
Template Types	Template Type Assignment	TemplateType	Defines types of templates available

2.5 Triggers and Actions

Trigger Name	Trigger Type	Action Initiated	Example
On Template Creation	Save Data	Save to Template Table	Create New Template
On Document Upload	Save Data	Save to Document Table	Upload Document

2.6 Microservices and Custom Functions

Microservice Name	Purpose	API Endpoint	Expected Inputs/Outputs
Template Service	Manage Templates	/api/lawyer_erp/	JSON Request/Response
Document Service	Manage Documents	/api/lawyer_erp/	JSON Request/Response

2.7 Reporting Requirements

Report Name	Purpose	Data Source	Filters
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Template Usage Report	Monitor template usage	Templates Table	Date Range
Document Report	Analyze document submissions	Documents Table	Date Range

1. Proposal Template

Template Creation View

- **Objective:** Create and manage email templates, which can be used as attachments in proposals.
- **Steps:**
 - **Click “Create New Template”:** Opens a form to create a new email template.
 - **Add Details:**
 - **Title:** Input for the template title.
 - **Contact Information Fields:** Use placeholders like `{{First_name}}`, `{{Last_name}}`, and `{{Email}}` for dynamic data entry that will auto-fill contact-specific information.
 - **Save Template:** Saves the template to the database.
- **Screen:** Display the saved templates in a table format, with columns for Title, Created Date, and Action options (Edit, Delete, and Preview).

Template Table View

- Display the saved templates in a **table format** for easier navigation and management:
 - **Columns:**
 - **Template Title**
 - **Date Created**
 - **Actions:** Edit, Delete, and Preview.
- **Screen Layout:** Table view with action icons/buttons beside each entry for quick actions.

2. Template Fill & Save

Fill and Save Template Screen

- **Objective:** Capture dynamic data for each template instance, allowing personalization.

- **Steps:**
 - **Fill Fields:** Add content using the pre-defined placeholders (e.g., `{{First_name}}`).
 - **Save Button:** Save the filled-out template instance.
 - **Screen Layout:** A form view with dynamic input fields and a “Save” button.
-

3. Template Review and Document Export

Document Template Review

- **Objective:** Review the document created from the filled template and download it if needed.
 - **Steps:**
 - **Review Content:** Display the completed template content for review.
 - **Download PDF:** Option to download the document in PDF format.
 - **Next Button:** Continue to the contact selection screen if no download is needed.
 - **Screen Layout:** Document preview with “Download PDF” and “Next” buttons.
-

4. Contact Type Selection

Select Contact Type Screen

- **Objective:** Select specific contacts to receive the proposal email.
 - **Steps:**
 - **Contact Type Filter:** Filter contacts based on type.
 - **Checkboxes for Contact Selection:** Select contacts to send emails.
 - **Submit Button:** Send the template as an attachment to the selected contacts.
 - **Screen Layout:** List of contacts with checkboxes, a “Select Contact Type” dropdown, and “Submit” button.
-

5. Email Sending Process

Email Approval & Sending

- **Objective:** Send the proposal email and display a status update.
- **Steps:**
 - **Display Sending Status:** Inform the user that the email is being approved and sent.
 - **Success Confirmation:** A notification on completion.
- **Screen Layout:** Message showing “Email is in the process of being approved and sent.”

Client Modules

1. Process Flow and Navigation

1.1 Use Case List (System Processes) and Required Flow Diagrams

Module	Use Case ID	Use Case Description	Flow Diagram Required
Client Type	UCI-001	Manage Client Types	Yes
Client	UCI-002	Manage Clients	Yes

1.2 Flow Diagram for System Processes

(Attach relevant flow diagrams for each process using tools like Lucidchart, Visio, or others.)

2. Process-wise Details: Tables, Screens, Fields, and Validation Functions

Use Case: Client Type (UCI-001)

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalued
Client Type Management	Name	Textbox	Mandatory	None	No
Client Type Management	Description	Text Area	Optional	None	No

Client Type Management	Created By	Dropdown	Foreign Key	User (User who created the Client Type)	No
Client Type Management	Updated By	Dropdown	Foreign Key	User (User who updated the Client Type)	No

2.2 Field Validation Functions

Field Name	Validation Function	Error Message
Name	validateName()	"Name is required."
Description	validateDescription()	"Description is too long."

2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
ClientTypeMaster	client_type_id	VARCHAR(100)	Primary Key	None	None
ClientTypeMaster	name	VARCHAR(100)	Not Null	None	None
ClientTypeMaster	description	TEXT	Optional	None	None
ClientTypeMaster	created_by	INT	Foreign Key	User.user_id	Direct

ClientTypeMaster	created_at	DATETIME	Auto-generated	None	None
ClientTypeMaster	updated_by	INT	Foreign Key	User.user_id	Direct
ClientTypeMaster	updated_at	DATETIME	Auto-updated	None	None

Use Case: Client Management (UCI-002)

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalues
Client Management	Client ID	Textbox	Unique, Optional	None	No
	Client Name	Textbox	Mandatory	None	No
	Account Manager	Dropdown	Foreign Key	User (Account Manager)	No
	Currency	Dropdown	Foreign Key	Currency	No
	Email	Email Field	Unique, Mandatory	None	No

	Phone Number	Number	Numeric, Optional	None	No
	Mobile Number	Number	Numeric, Optional	None	No
	Fax Number	Number	Numeric, Optional	None	No
	Creation Date	Date Field	Auto-generated	None	No
	Relationship Name	Textbox	Optional	None	No
	Relationship Contact	Number	Numeric, Optional	None	No
	Billing Name	Textbox	Optional	None	No
	Billing Contact	Number	Numeric, Optional	None	No
	Other Name	Textbox	Optional	None	No
	Other Contact	Number	Numeric, Optional	None	No
	Relationship Manager	Textbox	Optional	None	No

	Client Organization	Textbox	Optional	None	No
	Industry	Dropdown	Foreign Key	IndustryMaster	No
	Sector	Dropdown	Foreign Key	SectorMaster	No
	Known Relationships	MultiSelect	Optional	KnownRelationships	Yes
	Address 1	Text Area	Optional	None	No
	Address 2	Text Area	Optional	None	No
	Address 3	Text Area	Optional	None	No
	Country	Dropdown	Foreign Key	Country	No
	City	Dropdown	Foreign Key	City	No
	State	Dropdown	Foreign Key	State	No
	Zip Code	Textbox	Optional	None	No

	Status	Dropdown	Default: "Active"	None	No
	VAT Number	Number	Optional	None	No
	ABA Codes	Number	Optional	None	No
	Currency Code	Number	Optional	None	No
	Currency Symbol	Textbox	Optional	None	No
	Accounting Isolation	Textbox	Optional	None	No
	Minimum Trust Balance	Float	Mandatory	None	No
	Payment Status	Dropdown	Default: "Unpaid"	None	No
	Invoice Status	Dropdown	Default: "Pending"	None	No
	Paid Amount	Float	Default: 0.0	None	No
	Total Amount	Float	Default: 0.0	None	No

	Client Type	Dropdown	Foreign Key	ClientTypeMaster	No
	Updated By	Dropdown	Foreign Key	User (User who updated the Client)	No
	Created By	Dropdown	Foreign Key	User (User who created the Client)	No
	Creation Date	Date Field	Auto-generated	None	No
	Update Date	Date Field	Auto-updated	None	No

2.2 Field Validation Functions

Field Name	Validation Function	Error Message
Client ID	validateClientID()	"Client ID must be unique."
Email	validateEmail()	"Please enter a valid email address."
Phone Number	validatePhoneNumber() ()	"Phone number must be numeric."
Client Name	validateName()	"Client name is required."
Minimum Trust Balance	validateTrustBalance()	"Minimum trust balance must be a number."

2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Client	client_id	VARCHAR(300)	Primary Key, Unique	None	None
	client_name	VARCHAR(300)	Not Null	None	None
	account_manager_id	INT	Foreign Key	User.user_id	Direct
	currency_id	INT	Foreign Key	Currency.currency_id	Direct
	email	VARCHAR(100)	Unique, Not Null	None	None
	phone	INTEGER	Optional	None	None
	mobile	INTEGER	Optional	None	None
	fax	INTEGER	Optional	None	None
	creation_date	DATETIME	Auto-generated	None	None
	relationship_name	VARCHAR(300)	Optional	None	None
	relationship_contact	INTEGER	Optional	None	None

	billing_name	VARCHAR(300)	Optional	None	None
	billing_contact	INTEGER	Optional	None	None
	other_name	VARCHAR(300)	Optional	None	None
	other_contact	INTEGER	Optional	None	None
	relationship_manager	VARCHAR(300)	Optional	None	None
	organization_name	VARCHAR(300)	Optional	None	None
	industry_id	INT	Foreign Key	IndustryMaster. industry_id	Direct
	sector_id	INT	Foreign Key	SectorMaster.s ector_id	Direct
	known_relationships	VARCHAR(300)	Optional	None	Yes
	address1	TEXT	Optional	None	None
	address2	TEXT	Optional	None	None
	address3	TEXT	Optional	None	None

	country_id	INT	Foreign Key	Country.country_id	Direct(Mode-1)
	city_id	INT	Foreign Key	City.city_id	INDirect (Mode 2) When a country is selected, the related states should be displayed in the dropdown menu.
	state_id	INT	Foreign Key	State.state_id	INDirect (Mode 2) When a State is selected, the related City should be displayed in the dropdown menu.
	zip_code	VARCHAR(10)	Optional	None	None
	status	VARCHAR(50)	Default: "Active"	None	None
	vat_number	VARCHAR(50)	Optional	None	None
	aba_codes	VARCHAR(50)	Optional	None	None
	currency_code	VARCHAR(10)	Optional	None	None
	currency_symbol	VARCHAR(10)	Optional	None	None

	accounting_isolation	VARCHAR(300)	Optional	None	None
	minimum_trust_balance	FLOAT	Not Null	None	None
	payment_status	VARCHAR(50)	Default: "Unpaid"	None	None
	invoice_status	VARCHAR(50)	Default: "Pending"	None	None
	paid_amount	FLOAT	Default: 0.0	None	None
	total_amount	FLOAT	Default: 0.0	None	None
	client_type_id	INT	Foreign Key	ClientTypeMaster.client_type_id	Direct
	created_by	INT	Foreign Key	User.user_id	Direct
	updated_by	INT	Foreign Key	User.user_id	Direct
	creation_date	DATETIME	Auto-generated	None	None
	update_date	DATETIME	Auto-updated	None	None

2.4 Masters Section

Master Name	Screen Name	Table Name	Description
ClientTypeMaster	Client Type Management	ClientTypeMaster	Defines types of clients
KnownRelationships	Known Relationship Types	KnownRelationships	Stores known relationships

2.5 Triggers and Actions

Trigger Name	Trigger Type	Action Initiated	Example
On Form Submission	Save Data	Save client details to DB	Create New Client
On Update	Update Record	Update client details in DB	Edit Client Details
On Client Deletion	Delete Record	Remove client from system	Delete Client

2.6 Microservices and Custom Functions

Microservice Name	Purpose	API Endpoint	Expected Inputs/Outputs
Client Create, Create_Client_Type	Notify client updates	/api/lawyer_erp	Email/JSON Request/Response

2.7 Reporting Requirements

Report Name	Purpose	Data Source	Filters
Client Status Report	Monitor active vs. inactive clients	Client Table	Status Filter
Client Type Report	Analyze client type distribution	Client, ClientTypeMaster	Client Type

Client Information

1. Process Flow and Navigation

1.1 Use Case List (System Processes) and Required Flow Diagrams

Module	Use Case ID	Use Case Description	Flow Diagram Required
Rate Management	UCC-001	Manage User Rates	Yes
Client Contacts	UCC-002	Manage Client Contacts	Yes
Notes Notes	UCC-003	Manage Client Notes	Yes

1.2 Flow Diagram for System Processes

(Attach relevant flow diagrams for each process using tools like Lucidchart, Visio, or others.)

2. Process-wise Details: Tables, Screens, Fields, and Validation Functions

Use Case: Manage User Rates (UC-001)

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
cleint_billing_rates	Status	Dropdown	Optional	None	No
	All Rate	Number	Mandatory	None	No
	Billing Rate	Number	Mandatory	None	No
	Client	Dropdown	Foreign Key	Client	No
	Updated By	Dropdown	Foreign Key	User	No
	Created By	Dropdown	Foreign Key	User	No

2.2 Field Validation Functions

Field Name	Validation Function	Error Message
All Rate	validatePositiveNumber()	"All rate must be a positive number."
Billing Rate	validatePositiveNumber()	"Billing rate must be a positive number."

2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
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AllUsersRate	all_rate	FLOAT	Not Null	None	None
AllUsersRate	billing_rate	FLOAT	Not Null	None	None
AllUsersRate	status	VARCHAR(100)	Default 'all_user'	None	None
AllUsersRate	client_id	INT	Foreign Key	Client.id	Direct
AllUsersRate	update_by	INT	Foreign Key	User.user_id	Direct
AllUsersRate	created_by	INT	Foreign Key	User.user_id	Direct
AllUsersRate	created_at	TIMESTAMP	Auto-generated	None	None
AllUsersRate	update_at	TIMESTAMP	Auto-updated	None	None

Use Case: Manage Client Contacts (UCC-002)

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
Client Contact	Client ID	Dropdown	Mandatory	Client	No
	Country Code	Dropdown	Mandatory	CountryCodeMaster	No

	First Name	Textbox	Optional	None	No
	Last Name	Textbox	Optional	None	No
	Email ID	Email Field	Unique, Optional	None	No
	Work Phone	Number	Optional	None	No
	Description	Text Area	Optional	None	No
	Created By	Dropdown	Foreign Key	User	No
	Updated By	Dropdown	Foreign Key	User	No

2.2 Field Validation Functions

Field Name	Validation Function	Error Message
Email ID	validateEmail()	"Please enter a valid email address."
Work Phone	validatePhoneNumber()	"Phone number must be numeric."
First Name	validateName()	"First name is required."

2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
ClientContact	id	SERIAL	Primary Key	None	None
ClientContact	client_id	INT	Foreign Key	Client.id	Direct
ClientContact	country_code	INT	Foreign Key	CountryCodeMaster.id	Direct
ClientContact	first_name	VARCHAR(300)	Optional	None	None
ClientContact	last_name	VARCHAR(300)	Optional	None	None
ClientContact	email_id	VARCHAR(255)	Optional	None	None
ClientContact	work_phone	BIGINT	Optional	None	None
ClientContact	description	TEXT	Optional	None	None
ClientContact	status	VARCHAR(8)	Default 'active'	None	None
ClientContact	created_by	INT	Foreign Key	User.user_id	Direct
ClientContact	updated_by	INT	Foreign Key	User.user_id	Direct

ClientContact	created_at	TIMESTAMP	Auto-generated	None	None
ClientContact	updated_at	TIMESTAMP	Auto-updated	None	None

Use Case: Manage Client Notes (UC-003)

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalued
Client Notes	Client ID	Dropdown	Mandatory	Client	No
	Date	Date Picker	Optional	None	No
	Subject	Textbox	Optional	None	No
	Note Text	Text Area	Mandatory	None	No
	Created By	Dropdown	Foreign Key	User	No
	Updated By	Dropdown	Foreign Key	User	No

2.2 Field Validation Functions

Field Name	Validation Function	Error Message
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Note Text	validateNoteText()	"Note text is required."
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2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
ClientNotes	id	SERIAL	Primary Key	None	None
ClientNotes	client_id	INT	Foreign Key	Client.id	Direct
ClientNotes	date	DATE	Optional	None	None
ClientNotes	subject	VARCHAR(300)	Optional	None	None
ClientNotes	note_text	TEXT	Not Null	None	None
ClientNotes	status	VARCHAR(8)	Default 'open'	None	None
ClientNotes	created_by	INT	Foreign Key	User.user_id	Direct
ClientNotes	updated_by	INT	Foreign Key	User.user_id	Direct
ClientNotes	created_at	TIMESTAMP	Auto-generated	None	None
ClientNotes	updated_at	TIMESTAMP	Auto-updated	None	None

2.4 Masters Section

Master Name	Screen Name	Table Name	Description
Client	Client	Client	Defines types of clients

2.5 Triggers and Actions

Trigger Name	Trigger Type	Action Initiated	Example
On Form Submission	Save Data	Save client details to DB	Create New Client Contact, Create New Client Notes
On Update	Update Record	Update client details in DB	Edit Client Contact, Edit Client Notes Details
On Client Deletion	Delete Record	Remove client from system	Delete Client Contacts and Client Notes

2.6 Aggregation of Components

Component Type	Component Name
Navigation Menu	Client Management Menu
User Interface	Client Contact and Note Management UI

API	Client Management API for CRUD operations
Database Schema	Client, Client Contact, Client Notes Tables

2.7 Microservices and Custom Functions

Microservice Name	Purpose	API Endpoint	Expected Inputs/Outputs
Client Contact Create,Client Notes Create and Client User Rate	Notify client contact ,Client User Rate and client Notes	/api/lawyer_erp	Email/JSON Request/Response

2.8 Reporting Requirements

Report Name	Description
Client Contact Report	Overview of client contact information
User Rate Report	Summary of user rates and changes
Client Notes Report	Detailed report on client notes

Matter Modules

1. Process Flow and Navigation

1.1 Use Case List (System Processes) and Required Flow Diagrams

Module	Use Case ID	Use Case Description	Flow Diagram Required
Matter	UMC-003	Manage Matters	Yes
Matter Type	UMC-001	Manage Matter Types	Yes
Activity Master	UMC-002	Manage Activities	Yes
Role	UMC-004	Manage Role Details	Yes
Employee Register	UMC-005	Manage Employee Details	yes

1.2 Flow Diagram for System Processes

(Attach relevant flow diagrams for each process using Lucidchart, Visio, or other tools.)

2. Process-wise Details: Tables, Screens, Fields, and Validation Functions

Use Case: Employee Registration (UMC-005)

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
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Employee Registration	User ID	Textbox	Mandatory , Unique	Foreign Key - User table	No
Employee Registration	Employee ID	Textbox	Mandatory , Unique	None	No
Employee Registration	Address	Textarea	Mandatory	None	No
Employee Registration	City	Dropdown	Mandatory	Foreign Key - City table	No
Employee Registration	State	Dropdown	Mandatory	Foreign Key - State table	No
Employee Registration	Zip Code	Number	Numeric, Optional	None	No
Employee Registration	Account	Number	Default: 0.0	None	No
Employee Registration	Status	Dropdown	Mandatory	None	No
Employee Registration	Country	Dropdown	Mandatory	Foreign Key - Country table	No
Employee Registration	Interested Matter Types	Multi-select	Optional	Many-to-Many - MatterTypeMaster table	Yes

Employee Registration	Created By	Dropdown	Mandatory	Foreign Key - User table	No
Employee Registration	Updated By	Dropdown	Optional	Foreign Key - User table	No

2.2 Field Validation Functions

Field Name	Validation Function	Error Message
Employee ID	validateEmployeeID()	"Employee ID is required and must be unique."
Address	validateAddress()	"Address is required."
City	validateCity()	"City selection is required."
State	validateState()	"State selection is required."
Zip Code	validateZipCode()	"Zip Code must be numeric."
User ID	validateUserID()	"User ID is required."
Status	validateStatus()	"Status selection is required."

2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
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Employee Register	employee_id	VARCHAR(255)	Primary Key, Unique	None	None
Employee Register	user_id	VARCHAR(10)	Foreign Key, Not Null	User.user_id	Direct
Employee Register	address	TEXT	Not Null	None	None
Employee Register	city_id	INT	Foreign Key	City.city_id	INDirect
Employee Register	state_id	INT	Foreign Key	State.state_id	INDirect
Employee Register	zip_code	INTEGER	Optional	None	None
Employee Register	account	FLOAT	Default: 0.0	None	None
Employee Register	status	VARCHAR(100)	Default: "active"	None	None
Employee Register	country_id	INT	Foreign Key	Country.country_id	Direct
Employee Register	created_by	INT	Foreign Key, Not Null	User.user_id	Direct

Employee Register	updated_by	INT	Foreign Key, Optional	User.user_id	Direct
Employee Register	created_at	DATETIME	Auto-generated	None	None
Employee Register	updated_at	DATETIME	Auto-updated	None	None

Use Case: Manage Matter Types (UMC-001)

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalued
Matter Type Management	matter_type_id	Textbox	Mandatory, Unique	None	No
Matter Type Management	name	Textbox	Mandatory, Unique	None	No
Matter Type Management	description	Text Area	Optional	None	No
Matter Type Management	created_by_id	Dropdown	Foreign Key	User	No

Matter Type Management	updated_by_id	Dropdown	Foreign Key	User	No
Matter Type Management	created_at	Timestamp	Auto-generated	None	No
Matter Type Management	updated_at	Timestamp	Auto-updated	None	No

2.2 Field Validation Functions

Field Name	Validation Function	Error Message
name	validateMatterTypeName()	"Matter type name is required."

2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
MatterType Master	matter_type_id	VARCHAR(100)	Primary Key	None	None
MatterType Master	name	VARCHAR(200)	Not Null, Unique	None	None
MatterType Master	description	TEXT	Optional	None	None
MatterType Master	created_by_id	INT	Foreign Key	Users.user_id	Direct

MatterType Master	created_at	DATETIME	Auto-generated	None	None
MatterType Master	updated_by_id	INT	Foreign Key	Users.user_id	Direct
MatterType Master	updated_at	DATETIME	Auto-updated	None	None

Use Case: Manage Activities (UMC-002)

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalued
Activity Management	activity_id	Textbox	Unique, Optional	None	No
Activity Management	activity_type_name	Textbox	Mandatory, Unique	None	No
Activity Management	description	Text Area	Optional	None	No
Activity Management	created_by_id	Dropdown	Foreign Key	User	No
Activity Management	updated_by_id	Dropdown	Foreign Key	User	No

Activity Management	created_at	Timestamp	Auto-generated	None	No
Activity Management	updated_at	Timestamp	Auto-updated	None	No

2.2 Field Validation Functions

Field Name	Validation Function	Error Message
activity_type_name	validateActivityTypeName()	"Activity type name must be unique."

2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
ActivityMaster	activity_type_name	VARCHAR(200)	Not Null, Unique	None	None
	description	TEXT	Optional	None	None
	created_by_id	INT	Foreign Key	Users.user_id	Direct
	created_at	DATETIME	Auto-generated	None	None
	updated_by_id	INT	Foreign Key	Users.user_id	Direct

	updated_at	DATETIME	Auto-updated	None	None
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Use Case: Role Management (UC-001)

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalu e
Role Management	Role Name	Textbox	Mandatory, Max Length: 200	None	No
Role Management	Minimum Work Time	Time Field	Mandatory	None	No
Role Management	Description	Text Area	Optional	None	No
Role Management	Account Balance	Number Field	Numeric	None	No
Role Management	Created By	Dropdown	Foreign Key	User table	No
Role Management	Updated By	Dropdown	Foreign Key	User table	No
Role Management	Created At	Date/Time	Auto-generated	None	No

Role Management	Updated At	Date/Time	Auto-updated	None	No
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2.2 Field Validation Functions

Field Name	Validation Function	Error Message
Role Name	validateRoleName()	"Role name is required and must be unique."
Minimum Work Time	validateMinWorkTime()	"Minimum work time is required."
Account Balance	validateAccountBalance() ()	"Account balance must be a valid number."

2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Roles	role_id	VARCHAR(10)	Primary Key	None	None
Roles	name	VARCHAR(200)	Not Null	None	None
Roles	min_time_of_work	TIME	Not Null	None	None
Roles	description	TEXT	Optional	None	None
Roles	account	FLOAT	Default: 0.0	None	None

Roles	created_by_id	INT	Foreign Key	User.user_id	Direct
Roles	created_at	DATETIME	Auto-generated	None	None
Roles	updated_by_id	INT	Foreign Key	User.user_id	Direct
Roles	updated_at	DATETIME	Auto-updated	None	None

Use Case: Manage Matters (UMC-003)

2.1 Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
Matters	Matter ID	Textbox	Unique, Mandatory	None	No
	Matter Name	Textbox	Mandatory	None	No
	Client	Dropdown	Mandatory	Client table	No
	Assigned To	Dropdown	Mandatory	EmployeeRegister table	No
	Email	Email Field	Unique, Optional	None	No

	Matter Type	Dropdown	Mandatory	MatterTypeMaster table	No
	Billing Method	Dropdown	Optional	None	No
	Payment Due Upon	Dropdown	Optional	None	No
	Description	Text Area	Optional	None	No
	Minimum Trust Balance	Number	Mandatory	None	No
	Status	Dropdown	Optional	None	No
	Invoice Status	Dropdown	Optional	None	No
	Is Favorite	Checkbox	Optional	None	No
	Approve	Checkbox	Optional	None	No
	Created By	Dropdown	Foreign Key	User table	No
	Created At	DateTime	Auto-generated	None	No
	Updated At	DateTime	Auto-updated	None	No

	Updated By	Dropdown	Foreign Key	User table	No
	Subscribers	Dropdown	Foreign Key	User table	No
	ABA Codes	Multi-select	Optional	ActivityMaster table	Yes
	Client Contact	Number	Optional	None	No
	Hide Time From Invoices	Checkbox	Optional	None	No
	Hide Expenses From Invoices	Checkbox	Optional	None	No
	Confidential	Checkbox	Optional	None	No
	Non-Lawyers	Checkbox	Optional	None	No
	Confidential 1	Checkbox	Optional	None	No
	Confidential 2	Checkbox	Optional	None	No
	Internal	Checkbox	Optional	None	No
	User ID	Multi-select	Optional	User table	Yes

	Matter Type ID	Multi-select	Optional	MatterTypeMaster table	Yes
	Role ID	Multi-select	Optional	Role table	Yes

2.2 Field Validation Functions

Field Name	Validation Function	Error Message
Matter ID	validateMatterID()	"Matter ID must be unique."
Matter Name	validateMatterName()	"Matter name is required."
Email	validateEmail()	"Please enter a valid email address."
Minimum Trust Balance	validateTrustBalance()	"Minimum trust balance is required."

2.3 Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
Matters	matter_id	VARCHAR(100)	Primary Key	None	None
Matters	matter_name	VARCHAR(255)	Not Null	None	None
Matters	client_id	INT	Foreign Key	Client.client_id	Direct

Matters	assigned_to_id	INT	Foreign Key	EmployeeRegister.employee_id	Direct
Matters	email	VARCHAR(100)	Unique, Optional	None	None
Matters	matter_type_id	INT	Foreign Key	MatterTypeMaster.matter_type_id	Direct
Matters	billing_method	VARCHAR(100)	Optional	None	None
Matters	payment_due_upon	VARCHAR(100)	Optional	None	None
Matters	description	TEXT	Optional	None	None
Matters	min_trust_balance	FLOAT	Not Null	None	None
Matters	approve	BOOLEAN	Default: False	None	None
Matters	hide_time_from_invoices	BOOLEAN	Optional	None	None
Matters	hide_expenses_from_invoices	BOOLEAN	Optional	None	None
Matters	status	VARCHAR(100)	Default: "inactive"	None	None

Matters	invoice_status	VARCHAR(50)	Default: "Pending"	None	None
Matters	is_favorite	BOOLEAN	Default: False	None	None
Matters	created_at	DATETIME	Auto-generated	None	None
Matters	updated_at	DATETIME	Auto-updated	None	None
Matters	created_by_id	INT	Foreign Key	User.user_id	Direct
Matters	updated_by_id	INT	Foreign Key	User.user_id	Direct

2.4 Masters Section

Master Name	Screen Name	Table Name	Description
Client	Client Management Screen	Client	Defines client details
MatterTypeMaster	Matter Type Assignment Screen	MatterTypeMaster	Defines different matter types
ActivityMaster	Activity Management Screen	ActivityMaster	Defines activities associated with matters
Role	Role Management Screen	Role	Defines user roles

EmployeeRegister	Employee Management Screen	EmployeeRegister	Defines employee details
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2.5 Triggers and Actions

Trigger Name	Trigger Type	Action Initiated	Example
On Form Submission	Save Data	Save to Matters Table	Create Matter
On Matter Update	Update Data	Update Matter Record	Update Matter
On Deletion	Delete Data	Remove from Matters Table	Delete Matter

2.6 Microservices and Custom Functions

Microservice Name	Purpose	API Endpoint	Expected Inputs/Outputs
Create Matter,Create Matter Type , Create Activity Master,Create Role and Create EmployeeRegister	Manage Matters,Mattres Types, Activity Master ,Role Master and Employee Register	/api/lawyer_erp	JSON Request/Response

2.7 Reporting Requirements

Report Name	Purpose	Data Source	Filters
Matter Overview Report	Overview of all matters	Matters Table	Date Range, Client

Matter Status Distribution	Analyze status distribution	Matters Table	Matter Status
Matter Activity Report	Monitor activities related to matters	ActivityMaster Table	Matter ID, Date Range

Matters Informations

Process Flow and Navigation

1. Use Case List (System Processes) and Required Flow Diagrams

Module	Use Case ID	Use Case Description	Flow Diagram Required
MattersContact	UMC-006	Manage Matters Contact Details	Yes
MattersNotes	UMC-007	Manage Matters Notes	Yes

1.2 Flow Diagram for System Processes

Please create the following flow diagrams in Lucidchart, Visio, or another tool:

- **UC-006:** Manage Matters Contact Details Flow Diagram
 - **UC-007:** Manage Matters Notes Flow Diagram
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2. Process-wise Details: Tables, Screens, Fields, and Validation Functions

Use Case: Matters Contact Management (UMC-006)

1. Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalue
Matters Contact	Country Code	Dropdown	Mandatory	Foreign Key - CountryCodeMaster	No
Matters Contact	First Name	Textbox	Optional, Max 300	None	No
Matters Contact	Middle Initial	Textbox	Optional, Max 300	None	No
Matters Contact	Last Name	Textbox	Optional, Max 300	None	No
Matters Contact	Organization Name	Textbox	Optional, Max 300	None	No
Matters Contact	Email ID	Email	Unique, Optional	None	No
Matters Contact	Work Phone	Number	Numeric, Optional	None	No
Matters Contact	Description	Text Area	Optional	None	No
Matters Contact	Status	Dropdown	Default: Active	CommonStatus Choices	No

Matters Contact	Created By	Dropdown	Mandatory	Foreign Key - User	No
Matters Contact	Updated By	Dropdown	Optional	Foreign Key - User	No

2. Field Validation Functions

Field Name	Validation Function	Error Message
Email ID	validateEmail()	"Please enter a valid email ID."
Work Phone	validatePhoneNumber()	"Phone number must be numeric."
First Name	validateName()	"Invalid first name input."

3. Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
MattersContact	matters_id	INT	Not Null	Foreign Key - Matters.matters_id	Direct
MattersContact	country_code	INT	Not Null	Foreign Key - CountryCodeMaster	Direct
MattersContact	first_name	VARCHAR(300)	Optional	None	None

MattersContact	middle_initial	VARCHAR(300)	Optional	None	None
MattersContact	last_name	VARCHAR(300)	Optional	None	None
MattersContact	organization_name	VARCHAR(300)	Optional	None	None
MattersContact	email_id	VARCHAR(100)	Unique, Optional	None	None
MattersContact	work_phone	BIGINT	Optional	None	None
MattersContact	description	TEXT	Optional	None	None
MattersContact	status	CHAR(8)	Default: Active	CommonStatus	None
MattersContact	created_by	INT	Not Null	Foreign Key - User.user_id	Direct
MattersContact	update_by	INT	Optional	Foreign Key - User.user_id	Direct
MattersContact	created_at	DATETIME	Auto-generated	None	None

MattersContact	update_at	DATETIME	Auto-updated	None	None
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4. Triggers and Actions

Trigger Name	Trigger Type	Action Initiated	Example
On Form Submission	Save Data	Save to MattersContact Table	Save Contact Details
On Status Update	Update Data	Modify Contact Status	Update Contact to Inactive

Use Case: Matters Notes (UMC-007)

1. Screen Details

Screen Name	Field Name	Field Type	Validations	Relationships	Multivalued
Matters Notes	Client ID	Dropdown	Optional	Foreign Key - Client	No
Matters Notes	Matter ID	Dropdown	Mandatory	Foreign Key - Matters	No
Matters Notes	Date	Date Picker	Optional	None	No
Matters Notes	Note Text	Text Area	Optional	None	No

Matters Notes	Status	Dropdown	Default: Open	Status Choices	No
Matters Notes	Created By	Dropdown	Mandatory	Foreign Key - User	No
Matters Notes	Updated By	Dropdown	Optional	Foreign Key - User	No

2. Field Validation Functions

Field Name	Validation Function	Error Message
Note Text	validateText()	"Note text is invalid."
Date	validateDate()	"Enter a valid date format."

3. Table Mapping

Table Name	Column Name	Data Type	Constraints	Foreign Key	Foreign Key Mode
MattersNotes	client_id	INT	Optional	Foreign Key - Client.client_id	Direct
MattersNotes	matters_id	INT	Not Null	Foreign Key - Matters.matters_id	Direct
MattersNotes	date	DATE	Optional	None	None

MattersNotes	note_text	TEXT	Optional	None	None
MattersNotes	status	CHAR(8)	Default: Open	Status	None
MattersNotes	created_by	INT	Not Null	Foreign Key - User.user_id	Direct
MattersNotes	update_by	INT	Optional	Foreign Key - User.user_id	Direct
MattersNotes	created_at	DATETIME	Auto-generated	None	None
MattersNotes	update_at	DATETIME	Auto-updated	None	None

4. Triggers and Actions

Trigger Name	Trigger Type	Action Initiated	Example
On Note Addition	Save Data	Save to MattersNotes Table	Add New Matter Note
On Status Change	Update Data	Modify Note Status	Set Note as Completed

2.4 Masters Section

Master Name	Screen Name	Table Name	Description
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Client	Client Management Screen	Client	Defines client details
Matter	Matter Assignment Screen	Matter	Defines different matter details

2.6 Microservices and Custom Functions

Microservice Name	Purpose	API Endpoint	Expected Inputs/Outputs
Create Matter Contact, Create Matter Type and Create Matter Notes	Manage Matters Contacts and Matter Notes	/api/lawyer_erp	JSON Request/Response