
Software Requirements Specification

for

Design & Development of the Invoicing Module of an ERP System

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1. Introduction

This section gives a scope description and overview of everything included in this SRS document. Also, the purpose for this document is described and a list of abbreviations and definitions is provided.

1.1 Purpose

The purpose of this document is to write down the specific requirements of the Invoice module of an ERP system . It will illustrate the purpose and complete declaration for the development of this module. It will also explain system constraints, interface and interactions with other modules of the ERP system.

1.2 Definition , Acronym and Abbreviations

Term	Definition
ERP	Enterprise Resource Planning
API	Application Programming Interface
UI	User Interface
DESC	Description
DEP	Dependency

1.3 Product Scope

The invoice module is a part of the whole ERP system . It includes initiating new invoice for a customer and updating currently unpaid invoices . So the main goal of the product is covering the SRS of invoicing part of the whole system .

2. Overall Description

This section will give an overview of the whole system. The system will be explained in its context to show how the system interacts with other systems and introduce the basic functionality of it. It will also describe what type of stakeholders that will use the system and what functionality is available for each type. At last, the constraints and assumptions for the system will be presented.

2.1 Product Perspective

The ERP management system will be a web application . The administrator or the salesman in the system can access the invoice module . So , using a web browser the administrator or the salesman should have to browse the site and after logging into the administrator panel they can have the access of the invoice module . When a customer buy some product the salesman can create a new invoice for the customer . The customer can buy more product after a invoice is created .

The invoice module needs to know the name of customer , name of salesperson , invoice number, creation date, due date and the bill the customer have to pay . To store the data there will be a database .

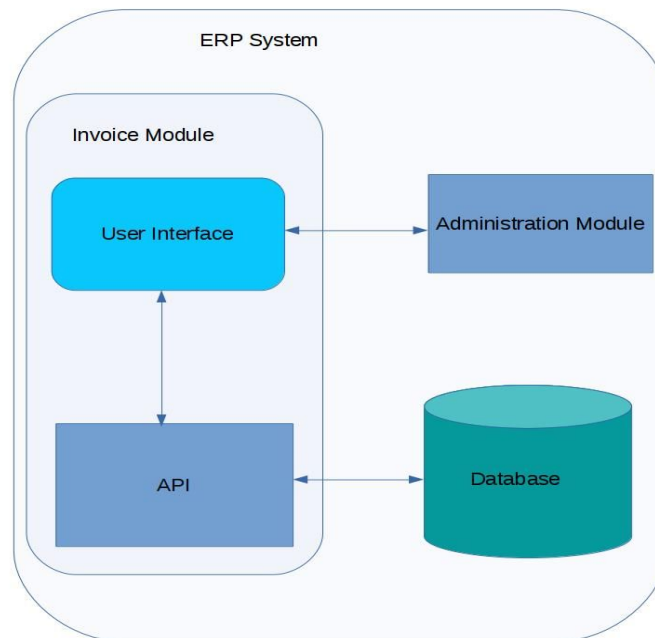


Figure 1 - Block Diagram of Invoice Module and It's Interactions .

Since all the system is web-based application there must have to have a server and database availability and to access the application there needs the internet connection .

2.2 Product Functions

At the starting the module will show all the invoice fetching from the database in a list view . Here all the necessary information for an invoice such as , customer name , invoice date , invoice number , salesperson , due-date , source-document, total amount to pay, due-amount and status of the invoice . If the list is big then it will be divided into several page . With this module the user can create new invoice for the customer . If a new invoice is created , it will be saved in database .

When an invoice is created it will be shown in the invoice list and it's status will be open . The authorized person can see the details of the invoice by clicking on a specific customer name in the invoice . Then there will be functionality to update the invoice for example adding products to the invoice .

The user have Register payment option to close the invoice taking the payment from the customer . After the payment is registered the status of the invoice will be paid and then it won't be editable anymore .

2.3 User Classes and Characteristics

There is only one type of users of the module , the administrator . The administrator will use this module to initiate and update of invoice and receive payment from customer providing the invoice . So the administrator should have basic computer skill such as , typing .

2.4 Design and Implementation Constraints

The invoice module is constrained to other ERP modules such as , customer and salesperson creation , products addition to the ERP system . For the first use there will be default data inserted manually in the database .

2.5 Assumptions and Dependencies

One assumptions about the module is it needs high performance of server . As the number of invoice grown the database will be big and any operation in database will cost much . So , there need a fast database management system .

3. Specific requirements

This section contains all of the functional and quality requirements of the system. It gives a detailed description of the system and all its features.

3.1 External Interface Requirements

This section provides a detailed description of all inputs into and outputs from the system. It also gives a description of the hardware, software and communication interfaces and provides basic prototypes of the user interface.

3.1.1 User Interfaces

The invoice module needs only the user interactions . So , user interface is mandatory for it . In a life-cycle of an invoice there are several interactions with the user will occur . Here are some interface to interact with the module -

The landing page of the module will be like the following

Invoicing

Customer Invoices

Create

Customer	Date	Number	Salesperson	Due Date	Source Doc	Total	Due	Status
Customer1	12/12/2012	INV23	Administrator	12/01/2013	Document1	3453\$	2343\$	Open
Customer2	12/12/2013	INV32	User1	12/01/2014	Document2	324\$	324\$	Open

Figure 2 : Landing page of Invoicing module .

Then , when creating a new invoice the UI will be as follows -

Invoicing

Customer Invoices

Customer Invoices / New

Save Discard

Open Paid

Open Invoice

Customer Invoice Date

Payment Terms Salesperson

Product	Description	Quantity	Unit Price	Taxes	Amount
Add Item					

Figure 3 : Creating New Invoice .

Here , providing the required data the user can create new invoice . A general form data validation will be provided .

Now , to see a details of a specific invoice user have to click on the name of the customer in an invoice . Then the details of invoice will be look like -

The screenshot shows a web interface for the Invoicing module. On the left is a sidebar with 'Customer Invoices'. The main area is titled 'Customer Invoices / INV23'. It contains buttons for 'Edit' and 'Create', and a 'Register Payment' button. To the right of these buttons are two diamond-shaped status indicators, 'Open' and 'Paid', with 'Open' being highlighted. Below these are fields for 'Customer' (Md. Shohag Mia (Details)), 'Invoice Date' (12/23/2018), 'Payment Terms' (30 Day), and 'Salesperson' (Sujon). At the bottom is a table with invoice items.

Product	Description	Quantity	Unit Price	Taxes	Amount
Graphics	Des	High	1234\$	5%	1345\$

Figure 4 : Invoice Details .

Here the user can see the details of the invoice . Here the user can edit the invoice details by clicking the **Edit** button .

Now , for the payment the user will have to register the payment by clicking on the **Register Payment** button . The register payment UI will be looked like -

The screenshot shows a 'Register Payment' dialog box. It has a title bar with a close button. Inside, there are four input fields: 'Payment Journal' (with a red error icon), 'Payment Amount' (showing '\$ 525.00'), 'Payment Date' (a dropdown menu showing '02/17/2018'), and 'Memo' (showing 'INV/2018/0003'). At the bottom are 'Validate' and 'Cancel' buttons.

Figure 5 : Register Payment .

Those are the UI of the module .

3.1.2 Hardware Interfaces

Since the module don't interact with any hardware there is no need of any hardware interface . The product information and all other information for the invoice will be given manually by the user .

3.1.3 Software Interfaces

As per this project scope there is no external software interface required .

3.1.4 Communications Interfaces

The communication between the different parts of the system is important since they depend on each other. However, in what way the communication is achieved is not important for the system and is therefore handled by the underlying operating systems .

3.2 Functional requirements

This section includes the requirements that specify all the fundamental actions of the software system.

3.2.1 Functional Requirement 01

ID : FR01

TITLE : Create New Invoice .

DESC : This requirement addresses the main functionality of the invoice module that is creating a new invoice for a customer . Clicking the button **Create** provide the functionality . A form will be shown where user can provide necessary data . To save the newly created invoice the user will have to click the **Save** button . If he doesn't want to save the invoice then he will have to click the **Discard** button . If a new invoice is saved to database then it's status will be **Open** until it is paid by registering payment .

DEP : None

3.2.2 Functional Requirement 02

ID : FR02

TITLE : Show Invoice Details .

DESC : The user will be able to see the details of any invoice by clicking the name of the customer of that invoice . It will show the details of the customer , products he buyed , date of invoice , amount to pay and due amount after paying some of the total amount , unit price of all the products , taxes and so on as depict in the UI .

DEP : None

3.2.3 Functional Requirement 03

ID : FR03

TITLE : Update Unpaid Invoice .

DESC : The user will be able to update any unpaid invoice . To update the invoice the user will have to go to the details page of that specific invoice . Then there will be a option to update the invoice . After clicking the **Edit** button the same form showing the details of the invoice will be editable . Then the user can edit everything in the invoice . Here , a key point to note that , only the open invoices are editable .

DEP : FR02

3.2.4 Functional Requirement 04

ID : FR04

TITLE : Payment .

DESC : This functionality addresses the payment capability of the invoice module . The user will have to go to the details page of the invoice . There he will have a functionality to register the payment . In the payment UI the user will have ability to choose payment method like bank or cash . A automated unique memo number will be generated if the payment is validated .

DEP : FR02

These are the main functional requirements .

3.3 Non-Functional Requirement

This section introduces the non-functional requirements of the module . These are -

3.3.1 Performance

ID : QR01

TITLE : Smooth access.

DESC : Access time of the data from database will have to be smooth . The API will be very efficient in providing service .

DEP : None

3.3.2 Maintenance

ID : QR02

TITLE : Easily Maintainability .

DESC : The module will be easily maintainable when integrating with other modules of the whole system .

DEP : None.