DESIGN DOCUMENT

FOR

HUMAN CAPITAL MANAGEMENT SOLUTION (HCMS)
(A Part of "Compzit")

For

(Al-Balagh Trading & Contracting Co.)

SYSTEM ANALYSIS DESIGN

DOCUMENT NUMBER:**VABG0001/PRCT13/SAD/001**

By

Acceptance and Release Notice

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This is the System Analysis and Design Document Release 1.0

Approved: .... Date: ....../......../........
Project Manager

Authorized: .... Date: ..../........./........
Business Analyst

Document History

Release Number	Date	Reason for Release	Prepared by
1	01/12/2016	Initial requirement analysis of organization management	Mr.Akhil P, Project Manager
2	12/01/2017	After first review of organization management module	Mr.Akhil P, Project Manager
3	18/01/2017	Final document release after complete review of organization management	Mr.Akhil P, Project Manager

Distribution

Copy Number	Release Number	Date Issued	Issued To
1	1	10/12/2016	Mr.Faiz Abdu, Project Consultant
1	2	12/01/2017	Mr.Faiz Abdu, Project Consultant
1	3	18/01/2017	Mr.Faiz Abdu, Project Consultant

Amendments

Amendment Number	Amendment Date	Issued To

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1) SOLUTION SCOPE

Scope of this solution is for managing employee related activities in the organization. This will be important to track human resource procedures for the smooth running of any enterprise. Solution allows starting with employee requirement section and budget definition. If this human capital requirement is finalized by HR department then next process of candidate searching will be managed. Solution allows maintaining employee databank also for future reference as well as internal searching to get better candidature. Employee joining process can also be automated after candidature finalization. Processing of salary & benefits is another prime section of the solution. There will be an employee service portal as part of HCMS which allows employees for login to the secured area and allows profile management, getting the status of leave, grievance cell etc.

2) SOLUTION AUDIENCE

Audience Category	Functional Areas
Solution Administrator	Software Maintenance, updating metadata & hands-on training etc.
HR Manager, HR Executive	For doing all HR related activities
Finance Department	Linking the financial aspects of HR department

3) SERVER HOSTING SPECIFICATION

- ORACLE Server
- .NET Framework 4.5 and Above

4) TECHNOLOGY & TOOLS FOR SOLUTION

Description	Technology / Tool Used
Documentation	Microsoft Word
Design Diagram	Microsoft Word / Visio / UI Tool
Application Layer	Microsoft Visual Studio Express 2012 for Web
Database Layer	Oracle 11g
Windows Service	IIS 8.0 and Above
Development Framework	Microsoft .NET Framework 4.5 and Above
Project Management	Proprietary

5) HCM MODULE LIST

1. ORGANIZATION MANAGEMENT

2. DESIGNATION MANAGEMENT

3. EMPLOYEE PERSONAL INFORMATION

4. EMPLOYMENT HISTORY

5. RECRUITMENT

6. EMPLOYEE ON BOARDING

7. LEAVE MANAGEMENT

8. EMPLOYEE IDENTITY AND ACCESS MANAGEMENT

9. PAYROLL MANAGEMENT

10. FOOD & BEVERAGES MANAGEMENT

11. EMPLOYEE EXIT PROCESS

12. TRAINING MANAGEMENT

13. MANPOWER PLANNING AND BUDGETING

14. PERFORMANCE MANAGEMENT

15. EMPLOYEE CONDUCT MANAGEMENT

16. EMPLOYEE WELFARE AND WELLBEING

17. CORPORATE SOCIAL RESPONSIBILITIES

18. EMPLOYEE SELF-SERVICE PORTAL

19. REPORTS & DASHBOARD RELATED TO ABOVE

6) SYSTEM ANALYSIS & DESIGN

This project will be an individual module Following are the various modules to be included in the solution.

6.1.1 ORGANIZATION MANAGEMENT

Basically we discussed about the organization architecture. Initially our compzit application has an organization structure. In this section describes the existing structure.
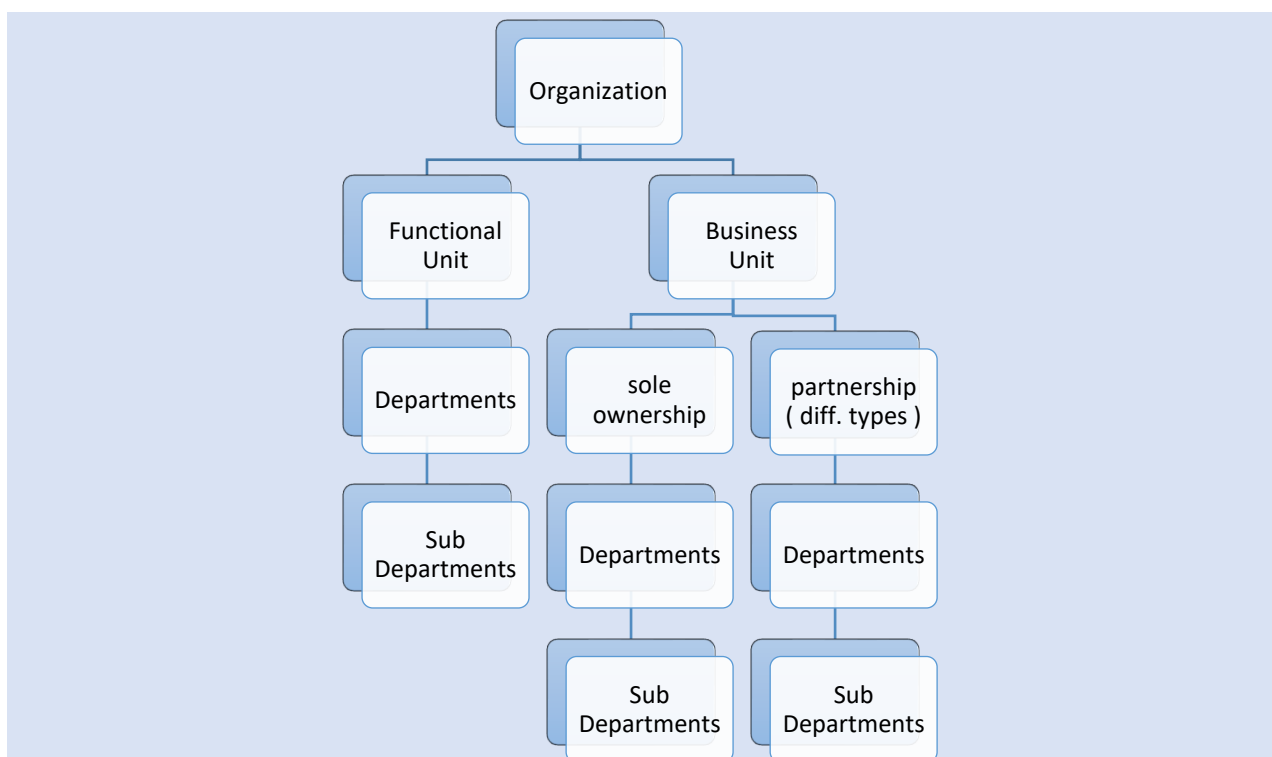
Basic flow

Figure 1

- Organization mainly divides into two major sections. Functional unit and business unit. In the terms of finance functional unit is a cost center and business unit is a profit center.

- Functional unit consist of departments and sub departments. These department structures are functional working structure in the organization.

- Functional units will work for business units. So as per the flow diagram functional units comes under the business units.

- We can generally divide the business unit as two, one is sole ownership and other is partnership. In the case of sole ownership the unit owned by the organization but run independently. There is no distinction between the unit and the owner.

- In partnership, organization have shares the unit's asset but not fully. There are different types of partnership available as generally. In partnership unit lot of other partners available. Unit run and owned independently.

- On the basis of these scenarios we need to make some changes in our existing application for make the system more generic.

- **Main Changes**

- Corporate office concept in the existing application will be removed and treated as business units (Example – division).

- Corporate office will be changed as business units in the corporate office reflecting places in the entire project.

- Currently the system have corporate division module under corporate office. They will be removed.

- On the employee definition module instead of checking multiple corporate offices needs to mark multiple business units if have any.

- If an employee log in to the application has more than one business units then user needs to select the unit after log in.

6.1.2 ORGANIZATION

Application worked under single organization concept. At the time of registration to the application user needs to fill the details in the organization registration interface. User doesn't have the provision for amend the entered details in the organization interface after registering. Whole details about the organization registration described in the SFA analysis document before. Now we are considering the changes that essentially needs for HCM. The changed interface looks like,

Organization Registration

Save	Clear	Close

Oragnization Type*   Select Organization Types

Oragnization Name*

Address 1*

Address 2

Address 3

Country*   Select Country

State*

City

Zip Code/PO Box

Phone

Mobile

Website

License Information

License Pack*   Select License Pack

License Pack Count

Corporate Pack*   Select Corporate Pack

Corporate Pack Count

Login Information

Email*

Password*

Confirm Password*

Commercial Registration

Commercial Registration Number*

Expiry Date*

Attachments   attachment caption

Issue Date

Partners

SI#	Name	Document No	CR No	Nationality	Percentage %	Status
1	Noora Rashid	24963400539		Qatar	10	Active
2	Sharida Saad	24363400284		Qatar	90	Active

Tax Card

Tax Identification Number*

Expiry Date*

Attachments   attachment caption

Issue Date

Computer Card

Computer Card Number*

Expiry Date*

Attachments   attachment caption

Issue Date

Save	Clear	Close

Figure 2

- Exclude basic details (that already have in the existing system) screen have three section of information. First one for commercial registration section and second one contain tax card information and third are computer card details.

- In commercial registration section, needs to provide CR number, registration expiry date. Optional filed for registration issue date. User can do multiple attachments against CR.

- In the case of organization there have partners for the enterprise. So the interface have slot for define the partners and their share, details.

- Partners name directly enter by the user and document number (ID card number), CR number (if the partner is a company), share percentage, and status. Country column contain the list and user can choose the country against the partner. Status column have a list and that contain two options are active and inactive. All other fields are entered by the user. User can enter multiple partners.

- Planning for implement an alert based on expiry date. Last three sections editable any time by authorized authority. (Note: - changes limited for some fields only.)

- In the case of tax and computer card all the functionalities and field details as same as that of above mentioned commercial registration.

6.1.3   BUSINESS UNIT

Application has the master module for add and view business module. As per above changes the corporate office master changed to business unit master sub system. Through this business unit master user can add different types of units. Different unit means sole ownership, partnership etc. Practically divisions, joint ventures were inserted to the application through this master module. Following image is the figure of business unit master

Business Unit Definition

Save | Save&Close | Clear | Close

Name*
Code*
☑ Same Organization Address
Address 1*
Address 3
State Select State
Zip Code/PO Box
Fax
Email*
Fiscal Start Month* April
Short Name
Mail Storage Email
TIN Number

Business Type* --Select Business Type--
Icon Icon1
Share Type* --Select Share Type--
Address 2
Country* Select Country
City Select City
Phone*
Website
Enquiry Email
Customer Care Number
Short Address
☐ Remove Mails From Common Mail Storage Email ID after Downloading
CIN Number

Office Type* --Select Office Type--
Parent Unit* --Select Parent Unit--

Partnership

Company Share Percentage* %

Sl#	Partner	Document No	Share %
1	Qatar Traders	28834500145	20
2	Oman Exports	27536605012	10

Figure 3

☑ **Same Organization Details**

Commercial Registration

Commercial Registration Number*   [   ]   Expiry Date*   [   ] 📅

Attachments   📎 [attachment caption] ➕ 🗑   Issue Date   [   ] 📅

Tax Card
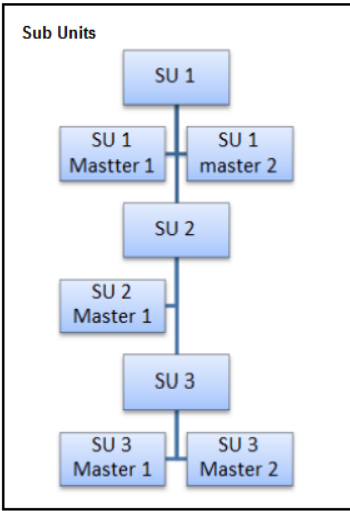
Tax Identification Number*   [   ]   Expiry Date*   [   ] 📅

Attachments   📎 [attachment caption] ➕ 🗑   Issue Date   [   ] 📅

Computer Card

Computer Card Number*   [   ]   Expiry Date*   [   ] 📅

Attachments   📎 [attachment caption] ➕ 🗑   Issue Date   [   ] 📅

Sub Units

SU 1

SU 1 Mastter 1 — SU 1 master 2

SU 2

SU 2 Master 1

SU 3

SU 3 Master 1 — SU 3 Master 2

[Save] [Save&Close] [Clear] [Close]

Figure 4

- **Refer** figure3 and figure4.
- User needs to fill these fields for add business units. Interface contains only basic information regards business units.

- Business types were sole ownership and partnership and business type master maintained by application administrator.

- Provision for attach the business unit icon image. Fiscal start month needs to store against each unit because there is a possibility for units located on different areas.

- If the business type is partnership then user should choose a share type from the corresponding list. App administrator maintains the various share types in the database and these types will list out in list.

- In finance module these share types will play as important role in the case of profit – lose statement.

- 'Same organization address' checkbox worked as copying the same organization address to the business unit against appropriate fields.

- Facility for provide enter mail storage email id. This mail address use to collect the mails that direct to the particular division.

- User can decide if the mails need to keep in the mail server after downloading or not through the check box.

- All other field are common informational fields related the unit.

- Interface has the facility for define the business unit is a branch office or a head office (office type). If it is branch office then must need to select the parent unit from corresponding list. If the unit is head office then the parent unit list must be deactivate.

- User can describe the sub units under the corresponding unit. Image has a flow chart that describes the sub unit sections. In the case of application it will be tool for defining the architecture.

- In the tool user can create any number of layers. But only one block is allowed in one layer. After that user have the permission for create the master entries against the block in the layer. Also have the provision for connecting these masters to parent master that comes under just above layer. Can't create a layer without parent layer and can't create a master without a parent master.

- Facility for edit and cancel the created layers and master entries under the layers.

- The entire unit will works under the created architecture in this master. User can't change the architecture flow if the unit runs based on the current structure.

- Another one is partnership structure, if the current unit comes under the partnership business type then user must provide the company share percentage on the particular partnership. And have the facility for store other partners share information.

- Meanwhile we need a partner master module. Next section will describe about that.

- In the partnership table user can choose the partners from the list, list arranged based on partner module. After that should insert the share percentage against the partner.

- There will be a system check if the sum of all percentage greater than 100 or not. More than 100 will not allow.

- Below section have three different information fields they are Commercial registration information, Tax card information and Computer card information. (Detailed explanation done in organization sub system)

- 'Same organization check box' acts as copying these three block information into the unit section against the corresponding fields.

6.1.4 PARTNER

For defining the partnership in business unit we need partners list associated with the organization. Here is a simple module for add partner name in to the system. Following screen is the partner add screen.
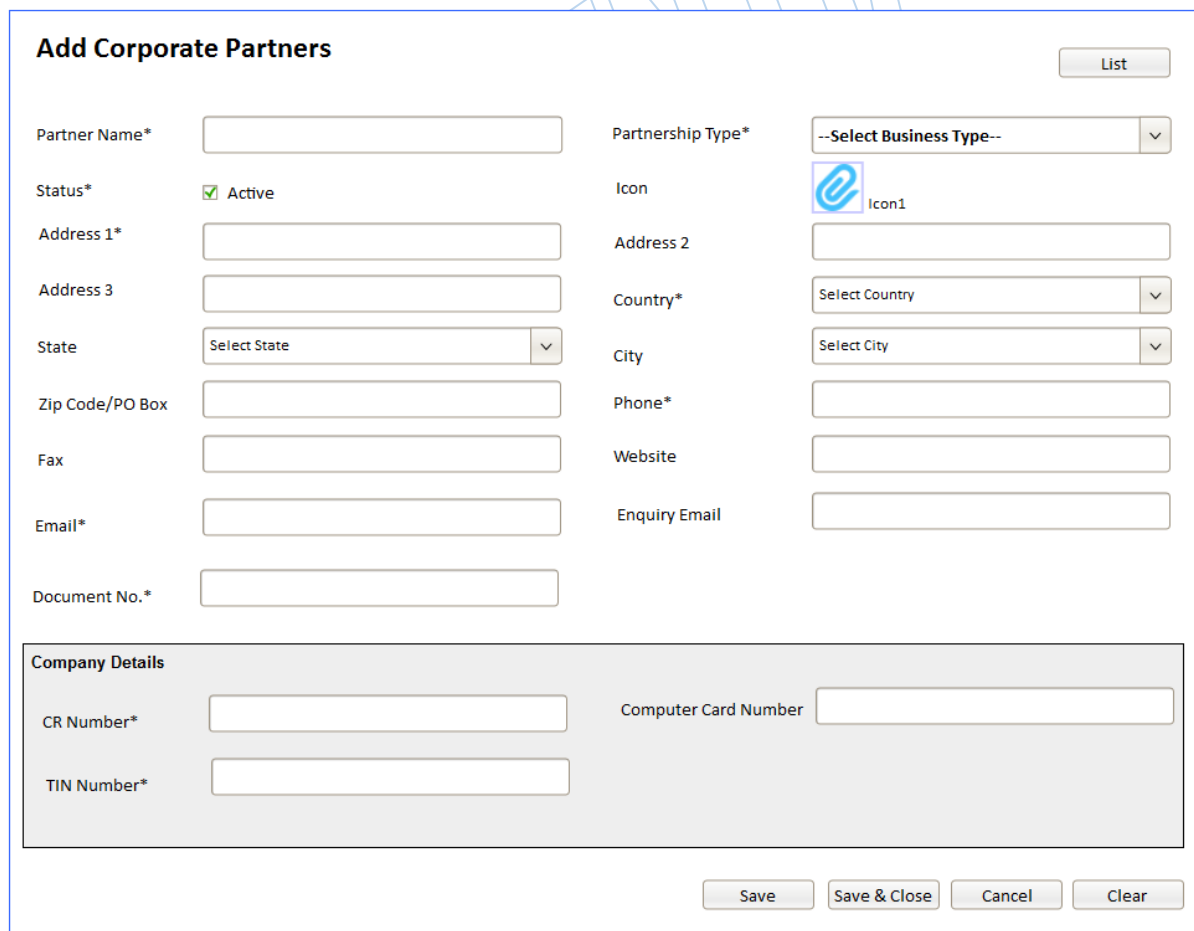

Figure 5

- User first needs to provide the partner name and the partnership type.

- There are two partnership types are available – Individual and company.

- Provision for attach an icon image against the partner. Need to fill the basic information against the partner whether the partnership type is individual or company.

- User can block the partner temporary by inactivate the partner status.

- If the partnership type is company then need fill the details in the company details section. If the partnership type is individual then the company details section will be invisible.

- This partner list will list out in the partnership section in the business unit defining section.

- This module also has the list section. following is the list screen

- Need partners address, registration number, country, state, city

Corporate Partners

			+ Add

Status* --Select Status-- ☐ Show cancelled entries   Type* Company   Search

Show 100 entries   Filter

Name	Type	Active	Edit	Cancel
Qatar Export	Company	✓	✏	🗑
Oman Airlines	Company	✓	✏	🗑

Figure 6

- Here list out all the partners that entered through the add screen. As usual our other modules user can edit and cancel the entries through list table.

- Three types of filtering options available in the list screen. One is filter by status and other is cancelled or not cancelled. Status are active, inactive and all. And the final filter option is partnership type the list contains 'individual', 'company' and 'all' options.

Actions:

- ✓ For changing the status to active if it is inactive and vice versa

- ✏ For editing the selected entry

- 🗑 For cancel selected entry

6.1.5 DEPARTMENT

Actually department concept comes under on functional units in the organization. On the above flow diagram departments comes under on functional units and it works under on business unit. Compzit project already have the corporate department master module but we remove that module create new department module under function unit. When we create departments we must declare the relation with the corresponding business units that need the department assistance. Through the department master we declare the department – business unit relation. Following image is the department add screen.

Corporate Departments

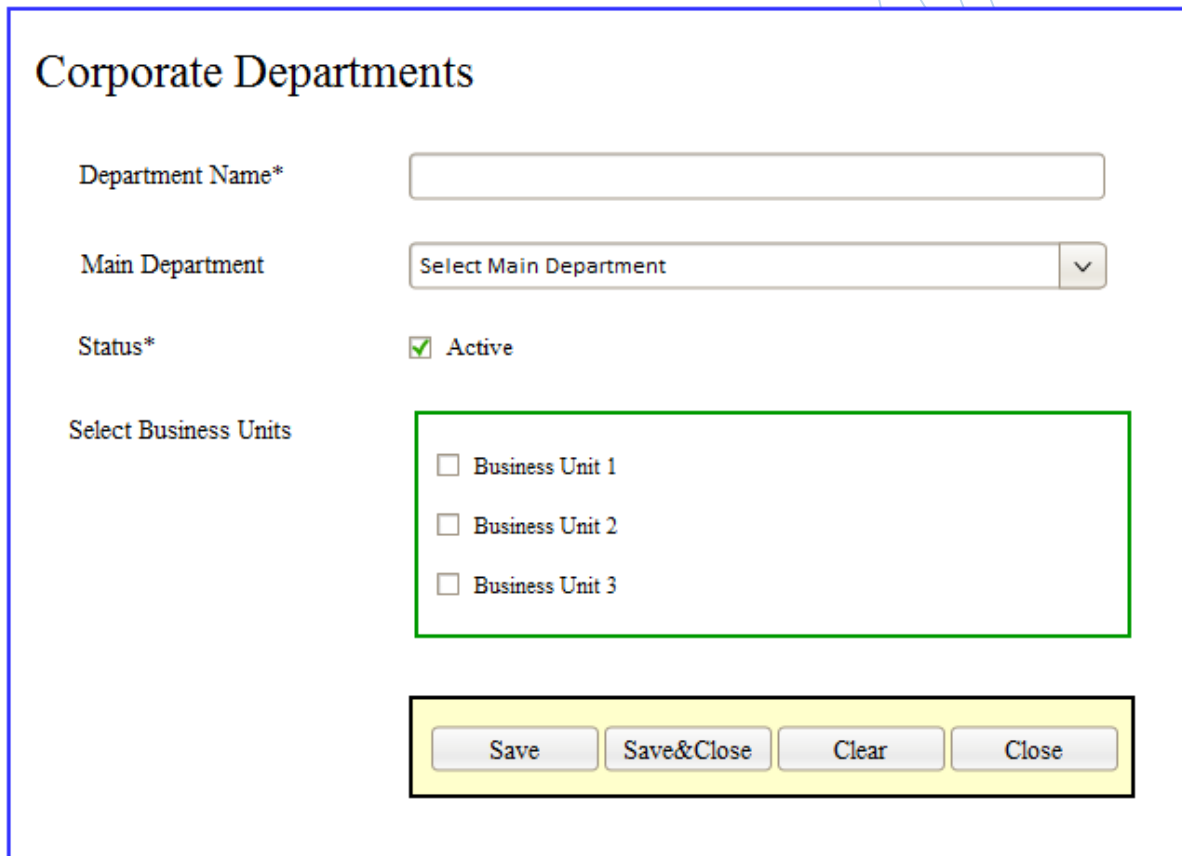|	
Department Name*	
Main Department	Select Main Department ▾
Status*	☑ Active
Select Business Units	☐ Business Unit 1
	☐ Business Unit 2
	☐ Business Unit 3

Save   Save&Close   Clear   Close

Figure 7

- Through this interface we can add departments and sub departments up to any number of layers.

- Must be a department name and if the department is a sub department then must select the main department from the list.

- In the main department list, list out the entire main and sub departments from the department master. So user can add any number of sub departments up to any layers.

- Defaults the status will be active and make it inactive we can temporary avoid the department from other modules.

- All the business unit from the panel will list out in the business unit panel user can choose the desired ones. This panel gives the relation between departments and business units.

- Through this method user can add individual department against business unit and general departments may work under more than one business units.

- This module has a list screen. We can use the old corporate department's list screen for this module with no change.

- Department itself comes under the functional units and it works for the business units. That is the department concept

6.1.6 DESIGNATION

There were no serious changes on the current running designation module in the compzit application. The amendment is when user creates a designation then automatically a default job role will generated in the job role master. There is no change in the designation list screen.

The interface for designation add screen looks like,

Designation Master

Designation*	
Designation Type*	Select Designation Type ▾
	☑ Active
Compzit Modules	☐ Administrator
	☐ SFA
	☐ WMS

User Role Allocation

⊞ ☐ Division
⊞ ☐ Department
⊟ ☐ Product
    ☐ ADD
    ☐ MODIFY
    ☐ CANCEL

☑ Allocate Selected Roles to Existing Users

[Save] [Close]

Figure 8

6.1.7   JOB ROLE

This is a new portion in organization flow that we need to implement in the existing project. Job role must come under the designation.in an organization every employee has the job role. Employees job roles decided based on their work. Organization can define the employee based on designation as well as the job role. Compzit application has an interface for add job roles.

Job Role Master

Job Role*   [   ]

Designation*   [Select Designation   ▾]

Status*   ☑ Active

User Role Allocation

⊞ ☐ Division
⊞ ☐ Department
⊟ ☐ Product
     ☐ ADD
     ☐ MODIFY
     ☐ CANCEL

☑ Allocate Selected Roles to Existing Users

[Save]   [Close]

Figure 9

- Job role must come under any designation.

- In this interface there is a facility for assign the menu and activity roles against the job role separately.

- After select the designation the default menu assigning on against the designation will automatically fill in the user role allocation section. After that user can make the changes against the particular job role.

- When we create an employee based designation and job role, employee adopt correspond job role's user allocation not designation's.

- This interface mainly focused for the customization of user roles based on job roles.

- This module has a list screen, following is the image of the list screen

Job Role

Status*	--Select Status-- ▾	☐ Show cancelled entries		+ Add
Designation	--Select Designation-- ▾	Search		

Show 100 ▾ entries   Filter [_____]

Name	Designation	Active	Edit	Cancel
It Manager	Manager	✓	✎	🗑
HR Manager	Manager	✓	✎	🗑

Figure 10

- Job roles listed along with designations. There are two mandatory filtering one based on status wise and other is cancel wise.
- Option filtering based on designation is available. If there is no designation were selected then the job role list out based on designation's alphabetic order.
- With selection of designation job roles list out on the basis of employee's alphabetic order.
  Actions:
- ✓ For changing the status to active if it is inactive and vice versa
- ✎ For editing the selected entry
- 🗑 For cancel selected entry

6.1.8 EMPLOYEE MASTER

Compzit ERP already has a well-structured employee master module. But on the time of HCM processing we need to modify the employee master module on various times. Now we did some small changes on employee master based on job role and user role individual allocation. Following image is the modified employee master add screen. there is no change in the list screen now.

Employee / User Master

Employee Name*	[ ]
Designation*	Select Designation ▼
Role*	Select Role ▼
Mobile	[ ]
Photo Upload	[Choose] DSC009.gif [Clear Image]
Email	[ ]
Login Name*	[ ]
Password* [   ] Confirm Password* [   ]

☑ Active

Main Business Unit*	Select Business Unit ▼

Department*

⊙ Department 1   ○ Department 2

○ Department 3   ○ Department 4

Sub Business Units

☐ Unit 1

☐ Unit 2

☐ Unit 3

User Role Allocation

⊞ ☐ Division

⊞ ☐ Department

⊟ ☐ Product

    ☐ ADD

    ☐ MODIFY

    ☐ CANCEL

[Save] [Close]

Figure 11

Modified Points

- Must choose a job role against an employee based on the designation. Job roles filled in the list based on the designation chose.
- After selecting the job role user role section automatically fill with respect of chosen job role. User role allocation only visible after selecting job role. Each time when the job role change there must be confirmation will ask for corresponding change in user role allocation.
- Change the job role from a normal one to none then the user role section will disappear after a confirmation question.
- After select the job role and automatic fill user roles, user can customize the user role provisions against the current employee.
- This customization will store against the employee.
- Compzit has already head office and branch office concept, so we need to assign all employees to any head business units.
- Need to choose the head business unit against the employee. if the employee works for any other main business units or branch business units then user can mention that through check the check box against the units.
- But in totally, the employee belongs to selected main business unit. In the sub business unit section will list out all the units that have come under in head and branch business unit.
- Based on main business unit corporate departments will list out in the department section. User needs to select any department for the employee and multi selection will not applicable.
- This is the changes had the add module and there is no change in the list screen.

6.1.9   EMPLOYEE ROLE ALLOCATION

This module is a special tool for employee user role allocation. User can customize the employee's user roles instead go through the employee master module. Following is the activity screen for the employee user role allocation.

Figure 12

- Designation and job role are the mandatory filtering options. So need to select the designation first after that select the job role based on that. Employee will list in the employee list based on these two lists.
- After select the employee user role portion will enable and it shows already the user role provisions that the current employee have.
- User can make changes in the user role allocation against the employees.
- So this amendment in user role provision will be the final and that will be active against the employee after the action.
- Following image is the list screen of individual employee role allocation.

Employee Role Allocation

Designation*	--Select Designation-- ⌄	Job Role*	--Select Job Role-- ⌄	Search

Show 100 ⌄ entries   Filter [   ]

Name	Edit	View
Athul	✏️	👁️
Gokul	✏️	👁️

Figure 13

- This list shows only the employees who had individual user role allocation.

- Inactive and cancelled employees will not list out. Only active employees will be available.

- Designation and job roles are mandatory fields. Employees will list out based on this.

- Edit and view provisions allowed against the filtered employees. Both actions redirected to employee user role allocation page.

TERMS & CONDITIONS

- Requirements given in the document is analyzed and reviewed by Al-Balagh Trading & Contracting Co.

- Changes in the requirement after the approval will be considered as change request and will be intimated in separate change request document.

INTELLECTUAL PROPERTY RIGHTS AND CONFIDENTIALITY ISSUES

Volviar intends to fully protect and preserve Al-Balagh Trading & Contracting Co.'s intellectual property rights. Further, privacy and confidentiality of its data are treated with utmost importance. Every employee of Volviar is bound by a non-disclosure agreement to protect the intellectual property of Volviar and any of its customers.

ACCEPTANCE ACCORD

This document is reviewed and agreed to and acknowledged by:

	Al-Balagh Trading & Contracting Co.	Volviar Technologies
Name	FAIZ ABDU ALANJERY	
Designation	PROJECT CONSULTANT	
Signature& Date	15-02-2017	