



**Solution Approach**  
*For*

**Design**  
**&**  
**Development**

## Company Details

Founded in 2000 by **Mr. Surajit Mitra** and **Mr. Chetan Naik** **CDN Solutions Group** ([www.cdnsol.com](http://www.cdnsol.com)) is a STPI registered/ISO 9001:2008 Certified/NSIC CRISIL SE-3B **Software and Mobile Application Development Company**. We are a team of 270+ software professionals at our Development Center, in Central India. We have an enviable delivery record of over 1400+ projects including 600+ mobile apps and a combined experience of more than 1,541,000 working hours that has enabled us to become technology partners to software development houses worldwide, serving clientele across 35+ countries. CDN offers best of the breed **customized solutions** to clients around the globe in following category:

- Software Development
- High-End Design and multimedia:
- Mobile Solutions

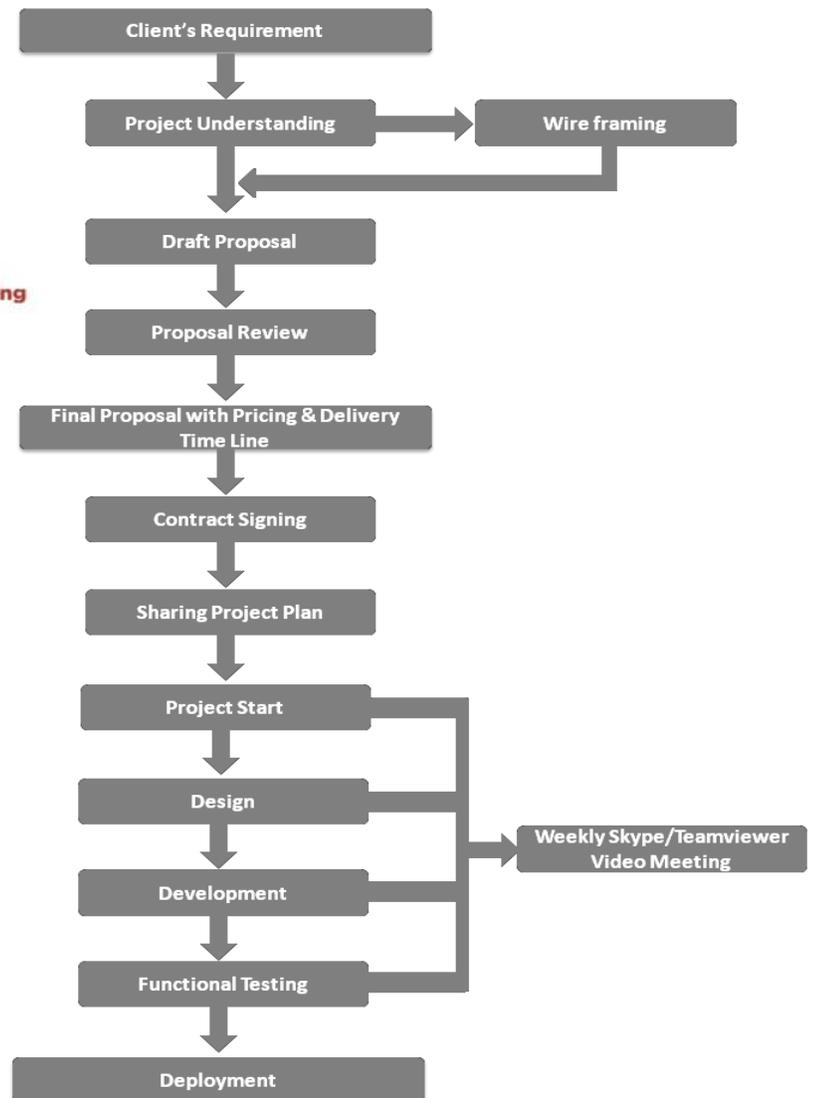
**Following are our company details**

<u>Company Details</u>	
Company name	CDN Solutions Group & CDN Software Solutions Pvt. Ltd.
Address	304, Princes' Business Skypark A.B. Road, Indore, M.P, India
Postcode	452001
Telephone No	+91-731-4035928
Fax No	+91-731-4215508
Website	<a href="http://www.cdnsol.com">www.cdnsol.com</a> <a href="http://www.cdnmobilesolutions.com">www.cdnmobilesolutions.com</a> <a href="http://www.cdndesignstudio.com">www.cdndesignstudio.com</a>

## Project Life Cycle:

We follow the complete software development lifecycle from planning to support to develop any kind of software application.

## Project Development Life Cycle



### Project Execution Structure:

At CDN Software Solutions Group we are very diligent about each project that we take up. Our team works in an extremely systematic and coordinated method, ensuring that you are kept informed and in loop throughout the production and execution of your project.

S. No.	Deliverables	Description
1	<b>SRS Draft</b>	A formal Functional Specification will be drafted based on the information provided for the execution of the site project.
2	<b>Approval</b>	Work will proceed on the SRS, once client approves the drafted document.
3	<b>SRS Final</b>	We will complete the Functional specification in view of your comments. Freezing on the requirement.
4	<b>Approval</b>	The final and formally approved specification will then be the basis for delivering the final product.
5	<b>Architecture</b>	Every project is staffed with an Architect who will close on the Technical Design and Architecture of the project. The Architect will ensure that the database design is optimal, are scalable and the development and design standards are set. Deliverable out of this phase is database schema.
6	<b>Project Kick-off</b>	The Project Manager will brief the programming team on the requirements, Creative Design and Prototype Mock up Creative design including logo designing home page and other page mock ups, style sheets, etc. will be initiated.
7	<b>Creative-Design/Prototype Mock-up</b>	We will build a non-working prototype that will include all major screens. The user interface will be non-navigable, but complete in all respects.  This will also include the look and feel of the site, logo, etc. We prototype all the major screens and get approval before developing them.
8	<b>Approval</b>	A review and approval on the prototype will be required from your end for further actions.
9	<b>Final Approval</b>	This will be considered as your Final approval, and development will begin on the same.

10	<b>Development</b>	We will begin writing the application. We follow all the standard development processes, like design reviews, code reviews, unit testing and peer testing.
11	<b>Testing</b>	Our expert quality Analysts will test the software in-house. The hours budgeted here will be used in testing throughout the development process.
12	<b>User Acceptance Testing (UAT)</b>	Complete system will be released for your testing.
13	<b>Feedback</b>	You will comment on the UAT results and provide approval to proceed.
14	<b>Final Version</b>	We will provide quick turnaround to fix any problems that are pointed out by you during UAT, resulting in the Final Version.
15	<b>Approval</b>	You will review the Final Version and give your approval.
16	<b>Launch</b>	We will provide our assistance in placing the product online

## Wire-framing

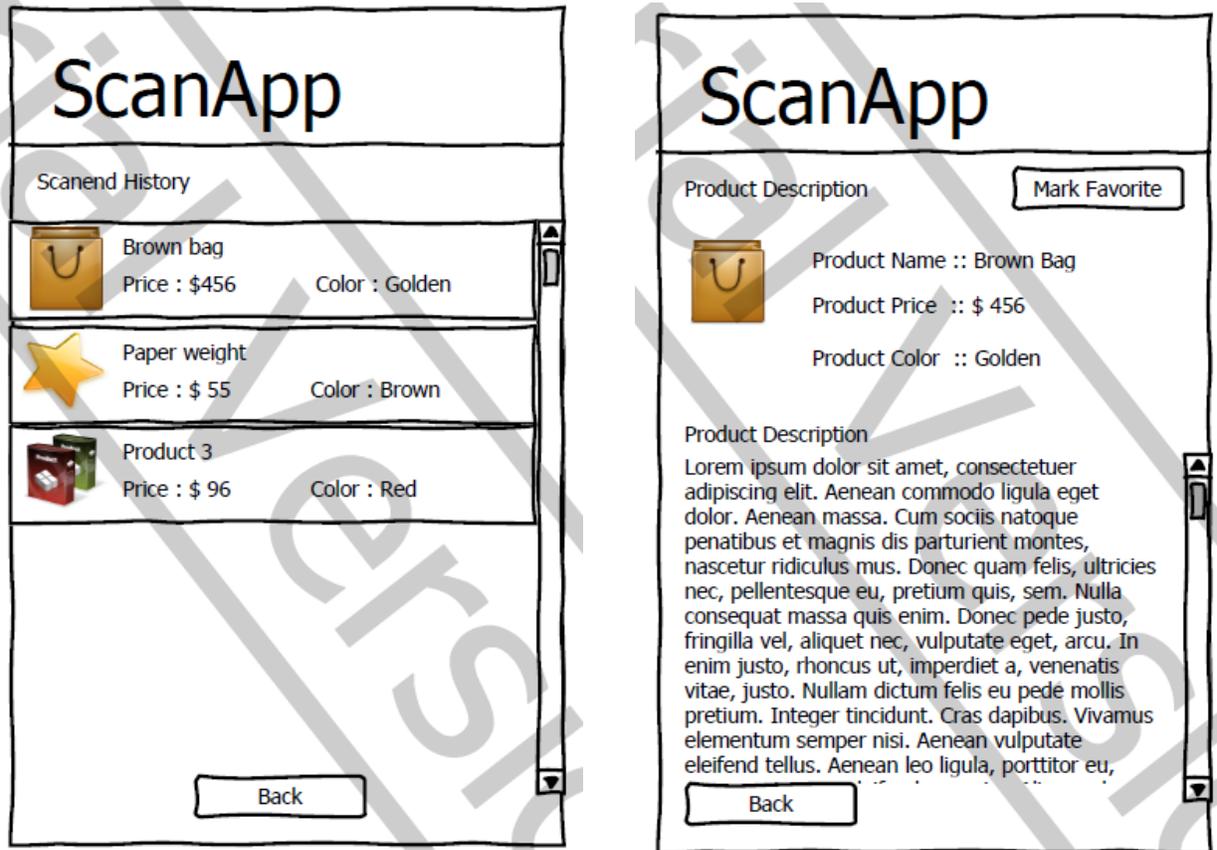
CDN also provides its clients with the option to hire a business analyst who works on creating clickable wireframe for the project. The wireframe helps the client in understanding the complete flow of the application, for instance what each mobile screen will include, what will be the content, the positioning of the content on the screen etc. Attached with the email are different formats of wireframe that can be provided to client based on the hiring from basic to advance. For one of the advanced clickable wireframe please check:

<http://cdnsolutionsgroup.com/DEMO/app-demo2/index.htm>

<http://cdnsolutionsgroup.com/DEMO/chatching/> **[CAN BE VIEWED IN iPhone AS WELL]**

**Below are some samples of various designs of wireframes:**

**A. Clickable Wireframes, which give flow of the application.**

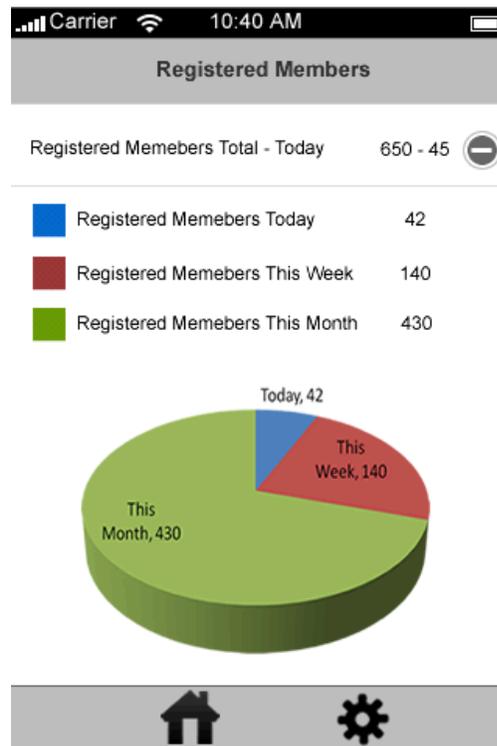
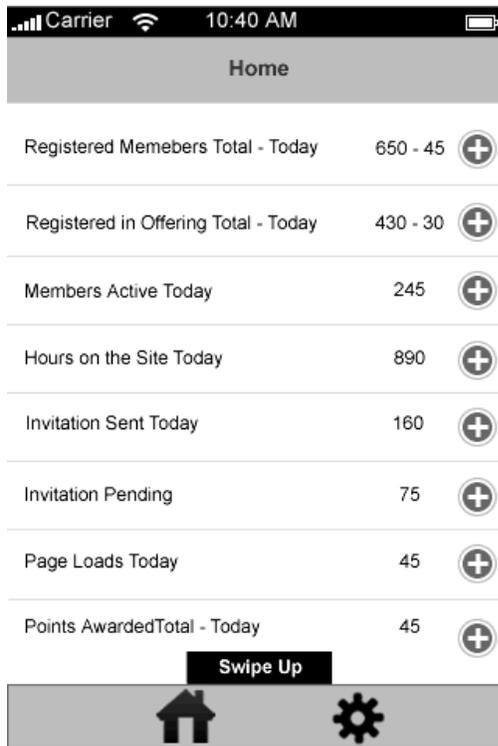


**B. This shows the entire flow of the project with written explanation of each screen function.**



This is the registration screen where a student can register himself to the application. After filling the all fields and click on registered, user will be provided with a credential to their email id using that he can login to the application and use other services.

### C. Wireframe, that can be viewed on web and which work as demo.



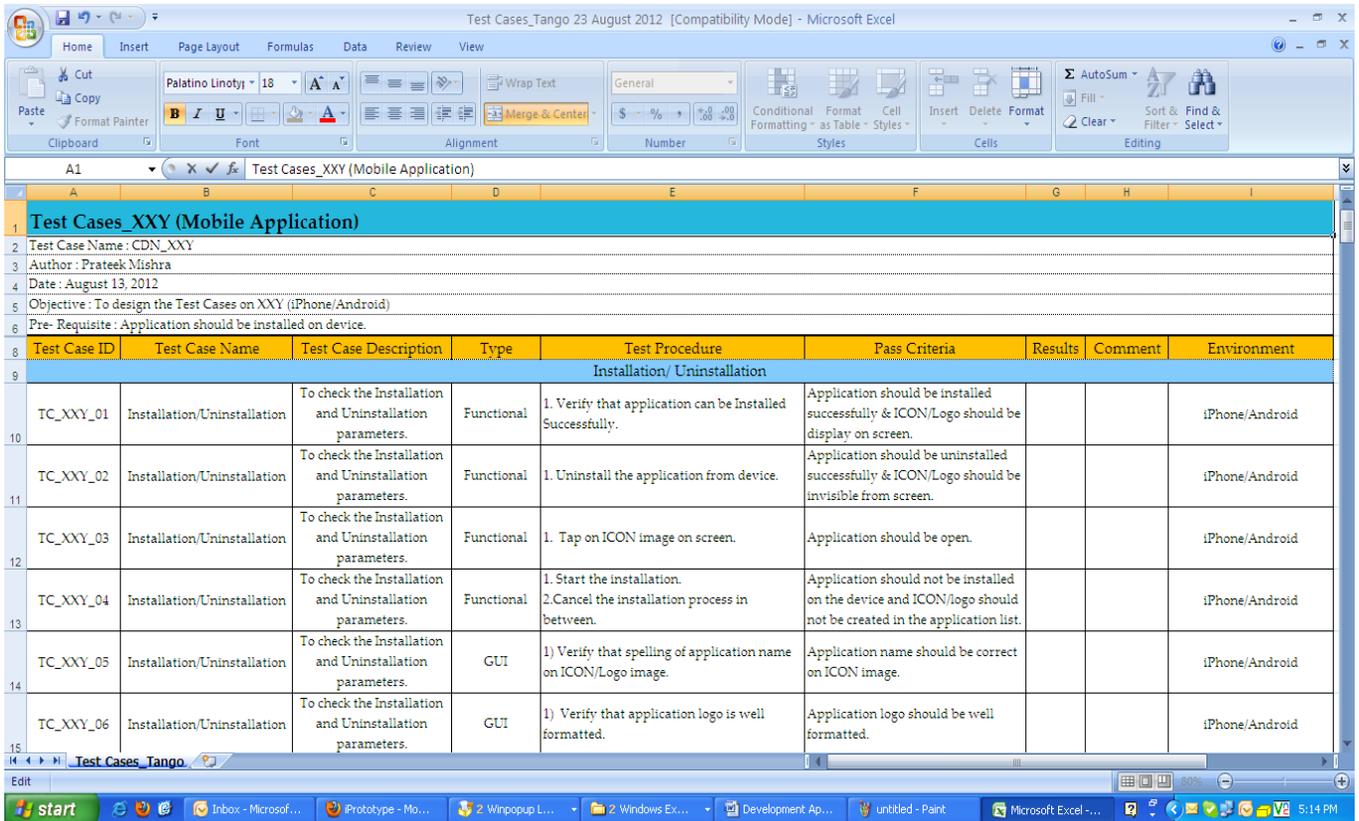
### Test Cases

For all our projects we also ask our team to write test cases which are written and shared with the client at the starting so the development team and the client also know exactly on what is the expected result of the each function and thus it can be matched with the actual outcome.

The Wireframe documents, UE Guide and the scope documents all go as an input towards developing the Test Cases.

A senior resource can be hired by client for preparing the test cases when we work on hire model. For fixed cost for larger projects which are more than 2000 hours we ask the team to write the test cases by default.

Below are screenshots of the Test Cases Created by our Team.



Test Cases on ABC (III Milestone-Web End)								
<b>Test Case Name:</b> CDN_ABC_Web End								
<b>Author:</b> Prateek Mishra								
<b>Date:</b> 30 May 2012								
<b>Objective:</b> To design the Test Cases on ABC (Server/Web End) as per the III Mile-stone								
<b>Pre- Requisite:</b> User should be able to Login into the ABC (Admin) URL.								
Test Case ID	Test Case Name	Test Case Description	Type	Pre- Requisite	Test Procedure	Pass Criteria	Results	Comment
TC_NCS_01	Dashboard	To check that functionality get displayed on 'Dashboard'.	GUI	User should be able to Login Into Night Club Application.	1. Login into application & check the screen.	Overall modules should be displayed 'Dashboard' along with proper alignment.		
TC_NCS_02	Dashboard	To check that functionality get displayed on 'Dashboard'.	Functional	User should be able to Login Into Night Club Application.	1. From dashboard display screen, click on the modules & check.	Overall modules should be clickable through Dashboard display screen as		
Scrutinize Posts								
TC_NCS_03	Scrutinize Posts	To check that 'Scrutinize Posts' menu functions properly.	GUI	User should be able to Login Into Night Club Application.	1. Click on 'Scrutinize Posts' menu & check the screen displayed.	Scrutinize Posts' screen should get displayed properly with proper alignment.		
TC_NCS_04	Scrutinize Posts	To check that 'Scrutinize Posts' menu functions properly.	Functional	User should be able to Login Into Night Club Application.	1. Click on 'Scrutinize Posts' menu & check the number of total posts.	It should correctly display the number total posts.		
		To check that 'Scrutinize Posts' menu		User should be able to	1. Click on 'Scrutinize Posts' menu & check the	Overall correct details of the post sho not displayed including its image, user		

## Testing:

Once the code is generated, the testing stage begins. Our team does testing on each module as the development progresses.

In testing phase we try to find out the software failure so that defects may be uncovered and corrected to determine that application run properly according to your condition and environment. We can determine that dose the application do what it is supposed to do.

Application compatibility is also checked keeping in mind that the application is compatible as per your working environment and with other application software, operating system, and web browser.

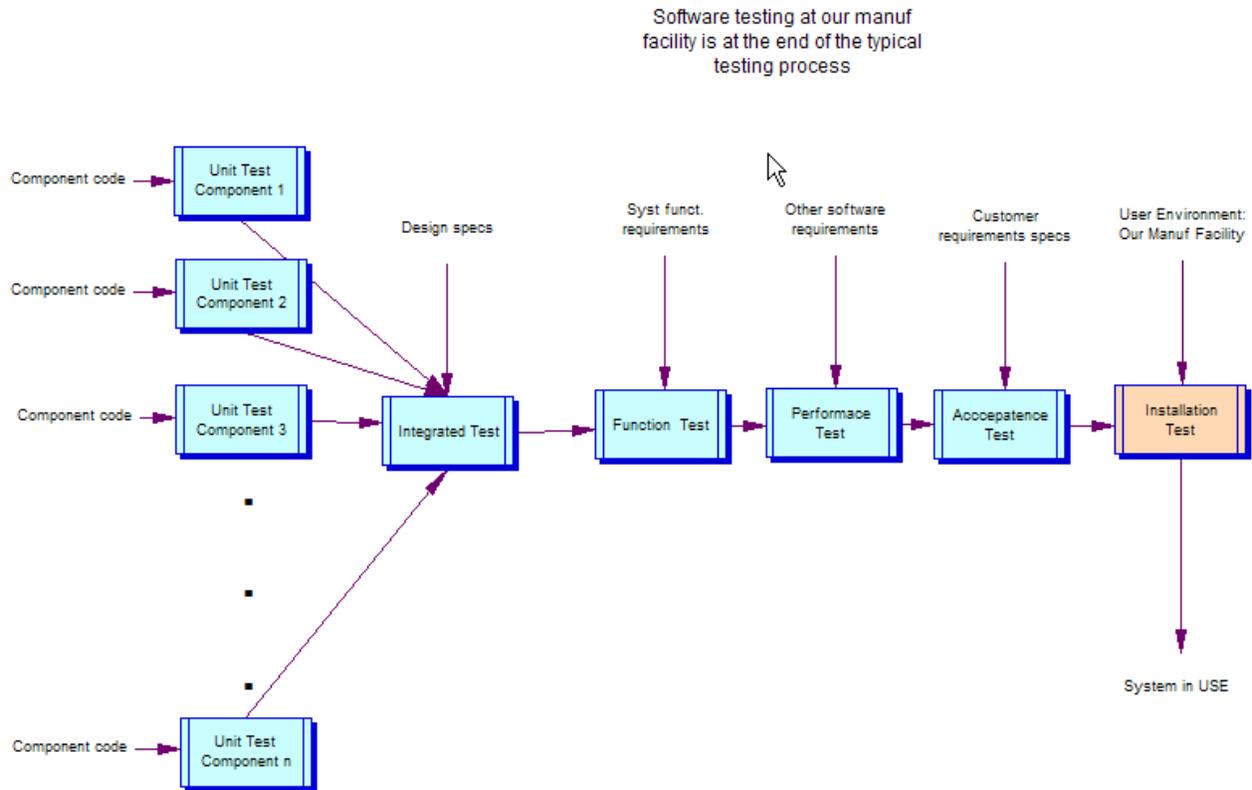
We perform our testing phase by keeping following points in mind:

- **Efficiency/performance:** The amount of system resources a program consumes, the less, the better. This includes correct disposal of some resources
- **Reliability:** We keep in mind how often the results of a program are correct. This depends on conceptual correctness of algorithms, and minimization of programming mistakes, such as mistakes in resource management.
- **Robustness:** This includes situations such as incorrect, inappropriate or corrupt data, unavailability of needed resources such as memory, operating system services and network connections, and user error.
- **Usability:** Keeping in mind that application should be user friendly. This involves a wide range of textual, graphical and sometimes hardware elements that improve the clarity, intuitiveness, cohesiveness and completeness of a program's user interface.
- **Portability:** The range of operating system platforms on which the source code of a program can be compiled / interpreted and run.
- **Maintainability:** We provide an ease to our clients where a program can be modified in future. If client wants to add new features to their application, we provide such facilities to our clients so that they can easily upgrade their applications by adding new features as per the requirement of the environment.

➤ **Defects and Failures:**

If any defects or failures are occurred in source code then these defects are recovered in development phase. Because the earlier a defect is found the cheaper it is to fix it.

We follow industry standard for testing i.e. from unit testing to installation testing:



**Progress Report / Reporting Structure:**

Preferred communication channel would be e-mails through official corporate ids, Skype (VOIP) & direct telephony. We are available round the clock in the due course.

At CDN we use in-house PMS which gives a complete overview of the status of the projects currently worked upon, resources involved etc. We provide you login credentials for you once the project starts with us. You can see minute by minute update of the progress of your project. Mentioned below are some of the screen shots which will give the overview of how it works.

# Welcome to CDNSOL

Please login

Nickname

Password

[Forgot your password?](#)

List

## Your Active Projects / relating to Andreas

Your Active Projects

List Grouped

<input checked="" type="checkbox"/>	P	Status	Company	Project	Status Summary	People	Efforts	Tasks	Opened	Closed
<input type="checkbox"/>	*	open	RAKUN Enterprise Management Software (ECM)	Rakun Development	RAKUN is a complete Enterprise Management Software (ECM) including Contact Management, Article Management, Production Lists, Mar	admin, Andreas, Richard, Vaibhav Joshi	10h	13	Apr 26, 2010	-

do...

Date	what	Task
Jun 12, 2010	attached file to by andreas to vaibhavjoshi	<b>Order Mgmt detail page (orders detail view)</b> #717 in RAKUN Enterprise Management Software (ECM) / changed: prio, completion / order position details: We need the article list in the order section. See the document for details. As you can see there the list of the article shows all important information like total amounts and weights. As well the shipping location can be showed in this list. To manipulate a single position from the an order we need the edit icon, as well the delete icon. By clicking on the edit icon the single position from an order can be updated. (State, Quantity, BusinessGroup, ShippingLocation, ShippingOptions) / order position details: We need the article list in the order section. See the document for details. As you can see there the list of the article shows all important information like total amounts and weights. As well the shipping location can be showed in this list. To manipulate a single position from the an order we need the edit icon, as well the delete icon. By clicking on the edit icon the single position from an order can be updated. (State, Quantity, BusinessGroup, ShippingLocation, ShippingOptions) / <b>view changes</b>
Jun 11, 2010	closed by andreas to vaibhavjoshi	<b>Search Page Initial</b> #733 in RAKUN Enterprise Management Software (ECM) / changed: planned_end, completion / <b>view changes</b>
Jun 11, 2010	closed by andreas to vaibhavjoshi	<b>User Settings Page Initial</b> #735 in RAKUN Enterprise Management Software (ECM) / changed: planned_end, completion / <b>view changes</b>
Jun 8, 2010	closed by andreas to vaibhavjoshi	<b>Stock mgmt pages</b> #755 in RAKUN Enterprise Management Software (ECM) / changed: prio, completion / : We don't need a tree view in the stock detail page. We need a tree view in the stock overview page. The TopArticle in the stock detail page is used to build up the tree view. You can choose different TopArticles for an article. An example: A bracelet model xy can be used in different watches. Another example: A screw n777 can be used in different movements. The movements can be used in different watches. When there is still some confusion then tell me. regards / : We don't need a tree view in the stock detail page. We need a tree view in the stock overview page. The TopArticle in the stock detail page is used to build up the tree view. You can choose different TopArticles for an article. An example: A bracelet model xy can be used in different watches. Another example: A screw n777 can be used in different movements. The movements can be used in different watches. When there is still some confusion then tell me. regards / <b>view changes</b>
Jun 4, 2010	New file by andreas	Order_details_example.docx in RAKUN Enterprise Management Software (ECM) > <b>Order Mgmt detail page (orders detail view)</b>
Jun 4, 2010	reopened by andreas to vaibhavjoshi	<b>Contact Management html design</b> #594 in RAKUN Enterprise Management Software (ECM) / changed: completion, prio / : in-complete: see file contact fields.docx / : in-complete: see file contact fields.docx / <b>view changes</b>
Jun 4, 2010	modified by andreas to vaibhavjoshi	<b>Order Mgmt Shipping + Bill page</b> #760 in RAKUN Enterprise Management Software (ECM) / changed: planned_end / <b>view changes</b>
Jun 1, 2010	completed Task by andreas to vaibhavjoshi	<b>Adaptation Layout</b> #724 in RAKUN Enterprise Management Software (ECM) / changed: completion / <b>view changes</b>   Approve Task

## Quick Start and Timely Delivery

We understand our customer's perspective and maintain the deadline by delivering the project on the committed date.

We develop a complete project plan at the start of the project and that is maintained by delivering the milestones on the given date. We provide value for money solution to our clients.

We can start with the project as early as we receive the requirement from your side and we will develop an understanding and plan for your project and once we are onto similar platform, we can start with the development of the project.

## Maintenance & Support:

*Once we sign the legal contract we assign a Project Manager for each project who is a one point contact and the architect for the system, the contact details of the project manager are shared with the client so that for any technical queries they can be directly communicated.*

*We provide support for all software bugs if reported for 6 month free of cost. However any Enhancements or functional changes are supported at a separate hourly cost.*