NIKITHA
AN ISO CERTIFIED COMPANY
9001:2015-14001:2015-45001:2018

Nikitha Build-Tech Pvt. Ltd.

Software Requirement Specification for Android and iOS Application Development for Execution Module.

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About

Nikitha Build-Tech is into construction of Pre-Engineered Buildings such as factories, warehouses, cold storages, etc.. Nikitha has its projects all over India, running simultaneously.

Existing System

Currently at Nikitha, we are monitoring projects on a daily basis through google forms and excel sheets. A project coordinator gets in touch with the site manager and collects data from them to input in the excel sheets. Whereas, the site engineer directly uploads all the data through google forms. It is then linked to Google Data Studio for further analysis. The images of the same have been attached in the appendices.

Proposed System

a. Purpose

Nikitha Build-Tech intends to build a mobile application that will enable the top level management team i.e. the directors of the organisation to monitor the

execution of multiple active projects. This application will enable the management to monitor the status of the project without physically being present at the project location. They can further analyse the data and take necessary actions to ensure the smooth running of the execution phase of the project.

b. Intended Use

The app will be used by the site engineers who are positioned on site, everyday, to enter the data w.r.t execution of the project. This includes data achieved nos. Or MT against the components as mentioned in BOQ, number of men present at site, equipment used for the day, and the expenses incurred for the day.
The project manager can get an overview of the project and the directors can monitor the resources involved in the projects, individually and cumulatively.

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c. Product Scope

The app will capture all the important data involved in execution of projects from the start to end of a project.
The app will give an overview of all the active projects and enable the top management to track projects and understand issues faced by those projects, if any.
The app will also enable the project manager to verify and approve the progress of their respective projects.
The app will enable the site engineers to enter the achieved targets, usage of equipment, usage of labour and daily expenses incurred, and the total material received for the day, by the end of the day to track the progress of their respective project.

d. User Type and and Needs

Admin

- Creates projects and assigns the users i.e. the site engineers, project managers and directors to their respective projects (multiple of necessary).
- They should be able to dismiss users from a particular project. ● The admin should be able to modify or enter data in case of wrong data entry or missing entry of data.

Directors

- Directors should be able to view and analyse the data - project wise or cumulatively.

- They should be able to drill down the data between a period.

Project Managers

- Project managers should be able to review and approve the data entered by site engineers at the end of the working day, before the data ends up in the final reports of achievement.

Site Engineers

- Site engineers should be able to key in all the data for the day before the deadline.
- The data includes achieved nos. Or MT against the components as mentioned in BOQ, number of men present at site, equipment used for the day, and the expenses incurred for the day.

- **Rename Site engineer to Project engineer**
- **Three Reports - PE should submit Morning & Afternoon Machinery and Manpower Report and Execution Report In the Evening.**
- **one project engineer can handle 2 projects.**
- **When project PE resigned, the project under him would be handled by PM until the new PE joins and give the option to**
- **block PE the one who is leaving the office; when all the available PE are assigned by 2 projects already.**

e. Data To Be Captured

Target in MT
Achieved in MT
Achieved % i.e. Achieved/Target*100
Weekly, Monthly and Cumulative Achievement along with Achievement between a period.
Number of people present

MT- Metric Tonnes

f. Other Features

- BOQ to be added at the beginning of each project. The targets are to be picked from BOQ.
- Labours to be added category wise at the start of each project. ● S-curve for monitoring planned targets vs. achieved work to be added in reports.
- Location at the time of update of data can be captured.

- A Project manager can be assigned to multiple projects.
- Profile page should capture employee code, project ID assigned, project name, site location, etc.

- Allow site engineers to capture images at the site to show the progress of the project day-to-day and feed them at the time of daily report submission.
- Site engineers should not be allowed to edit any corrections to the daily report approved by the project manager. However, they can approach admins to modify it if needed (provided Directors approval)
- Site engineer should be allowed to add an entry for the same day and receive push notifications as a reminder to submit before submission time and not be allowed to submit for the previous day
- Admin should have access to fill in either yesterday's or today's new daily report
- In the absence of a site engineer, supervisors can approach the project manager to log the daily report for a project where the site engineer is not available for the day
- Send reminders to the project manager for each project about milestones and a few days before to keep track of delays or any other info to be entered before closure to ensure the project is delivered on time
- For each project, the directors should be able to see Dual horizontal bar chart that shows target vs. achieved along with Actual end date of the project status.
- Provision to upload entire BoQ (Bill of Quantity), however, we will display only the summary of the report by groups and not the breakdowns ● In BoQ, the project ID is grouped and part numbers are unique reference ID which is used to summarise the project details.
- The process is site manager Loads > Preview within UI > submit for approval to project Manager > Upon approval it finally uploads to the system. ● The Directors/Admin should be allowed to print the reports to PDF format that helps them to demonstrate on Monitor or share with stakeholders ● Login auth should be based on employee ID and Password
- Logout within 10 mins of Idle time.
- "When the user logs in from another device(other than the personal or actual device used at the time of registration), there should be push notification to Admin and Directors.
- Avoid multiple logins at the same time.
- Device_ID + phone_number = unique key for logins."
- Archive old data > 3 years. Download the data to local storage and when needed, restore the app.
- Push notification varies for each users (4 for each user)
- The Site engineer should log Machinery details provided with predefined drown down and log the hours of usage in a day which goes to approval flow to Project Manager
- The Site engineer should enter Money-Expenses spent for the day under different predefined categories.
- The Site Engineer should be allowed to track material received as per MRS(Material receipt Sheet) comparing with BoQ

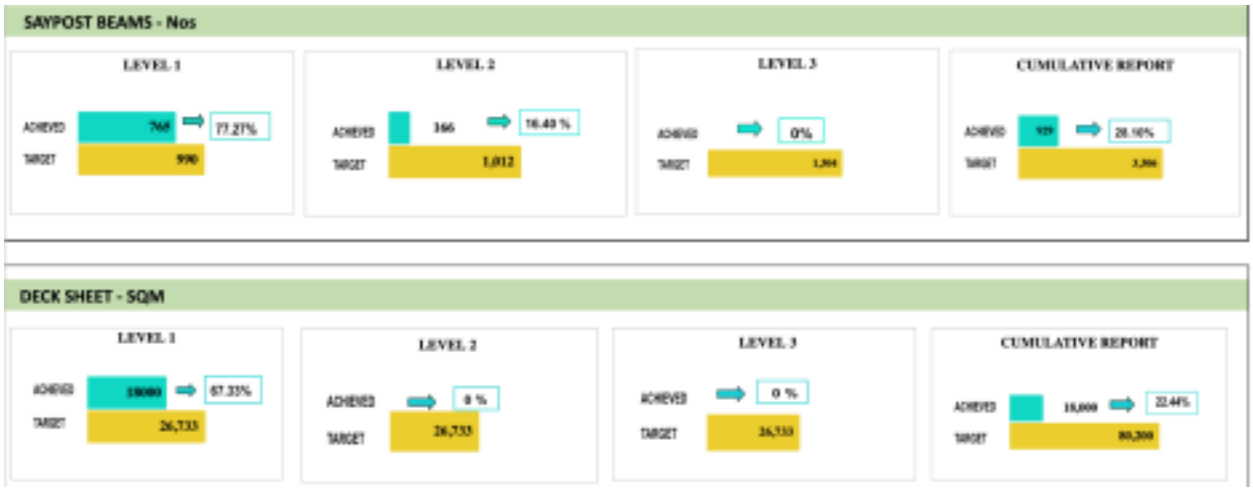
- In absence of a site engineer, the supervisor will approach the project manager to enter the daily report.
- Single application to all the users
- Force allow site engineers to enable GPS in the app in order to use and capture their location while submitting the daily report
    - **Remarks to be included**
    - **Machinery Report Should Include - Start and End time and also TextBox to Display how many Numbers of Machines**
    - **The " Others Tab " In Machinery should have 4 extra Tabs.**
    - **Instead of employee Id change it to user ID in the Login page.**
    - **while creating the user Designation drop down list show with hierarchy i:e Director, PM, and then PE.**
    - **remove the personal mail ID option instead put option of one common mail ID of nikitha.**
    - **For not yet started projects instead of the "Not yet started" tag use "Yet to start".**

Conclusion

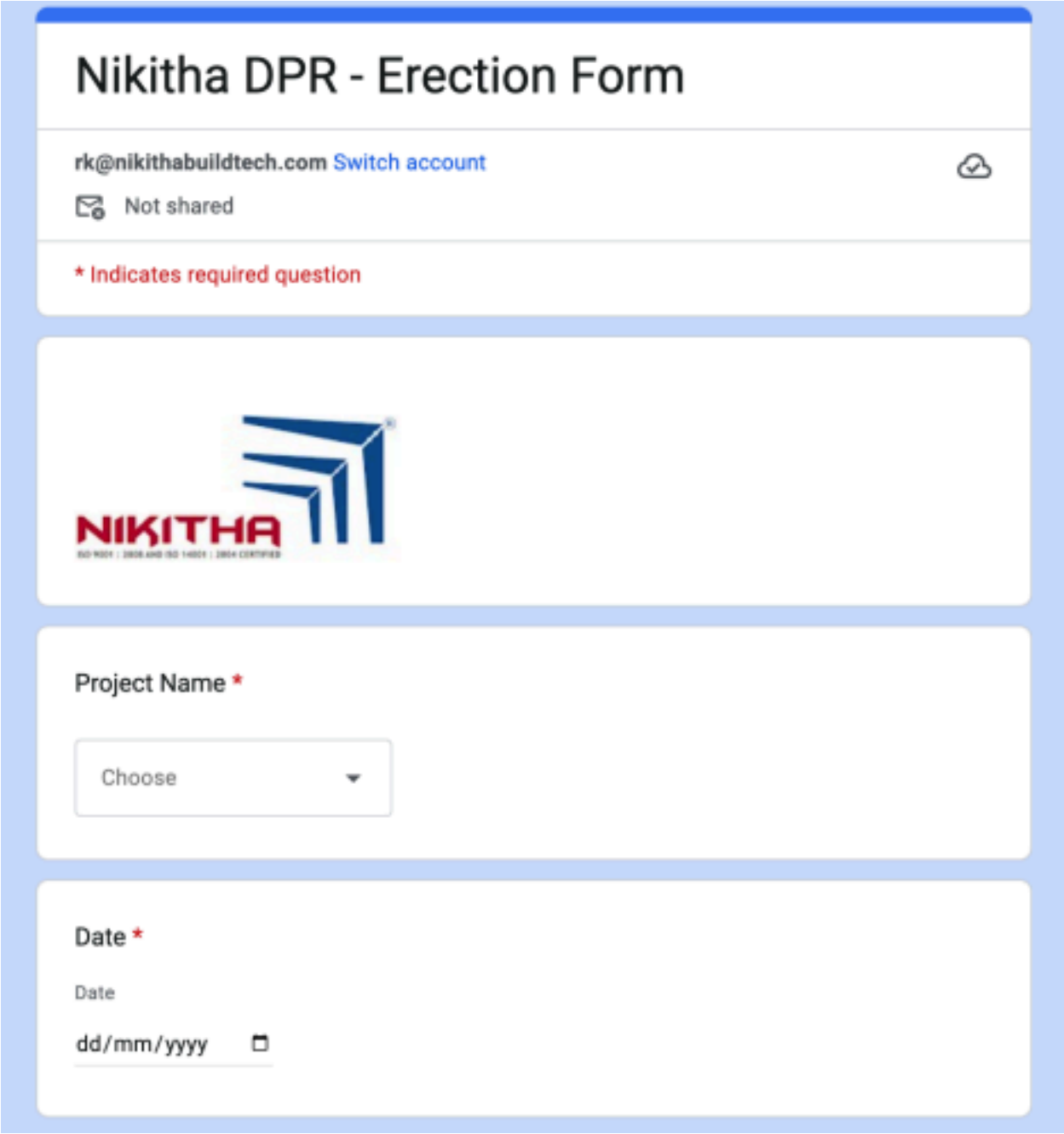
In conclusion, Nikitha Build-Tech is looking to develop a mobile application that will be easily accessible by the site managers from the projects to update data on a daily basis. This data will be monitored by the directors through reports. This will enable the smooth functioning of the execution phase of a project life cycle.

Appendices

DAILY PROGRESS REPORT												
Sl no	Item	Level 1			Level 2			Level 3			Cumulative		
		A	T	%	A	T	%	A	T	%	A	T	%
1	Columns	67	72	93.1%	26	72	36.1%	-	72	0.0%	93	216	43.1%
2	SayPost Beam	765	990	77.3%	167	1,012	16.5%	-	1,304	0.0%	932	3,306	28.2%
3	Non SayPost Beam	278	546	50.9%	-	965	0.0%	-	1,974	0.0%	278	3,485	8.0%
4	Deck Sheet	18,000	26,733	67.3%	-	26,733	0.0%	-	26,733	0.0%	18,000	80,200	22.4%
5	Studs	41,252	76,007	54.3%	-	76,007	0.0%	-	76,007	0.0%	41,252	228,022	18.1%



Google Form



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Site Incharge *

Choose

Total Achieved Today (structure) (MT)

Your answer

Achieved -Roof sheeting (Sq.m)

Your answer

Achieved -Cladding (Sq.m)

Your answer

Achieved -Deck Sheet (Sq.m)

Your answer

Achieved - Others - Gutter/down spouts/trims (running meter)

Your answer

Achieved - Foundation Bolt Fixing (Pedestal No.)

Your answer

UNLOADING -QTY(MT)

Your answer

Others (MT) - structural accessories

Your answer

Painting Qty (MT)

Your answer

Weld Mesh (Sq.m)

Your answer

Insulation (sq.m)

Your answer

Turbo Vents Qty (no.)

Your answer

Rework/Miscellaneous Works -Labours Used (No.)

Your answer

Total Manpower used Fitter/Rigger (No.)

Your answer

Total Manpower used -Helpers (No.)

Your answer

Daily Cash Expenses (INR)

Your answer

Cash Expenses Details

This is mandatory. Mention the headings and break-up

Your answer

Client Remarks (if any)

Your answer

EQUIPMENTS USED

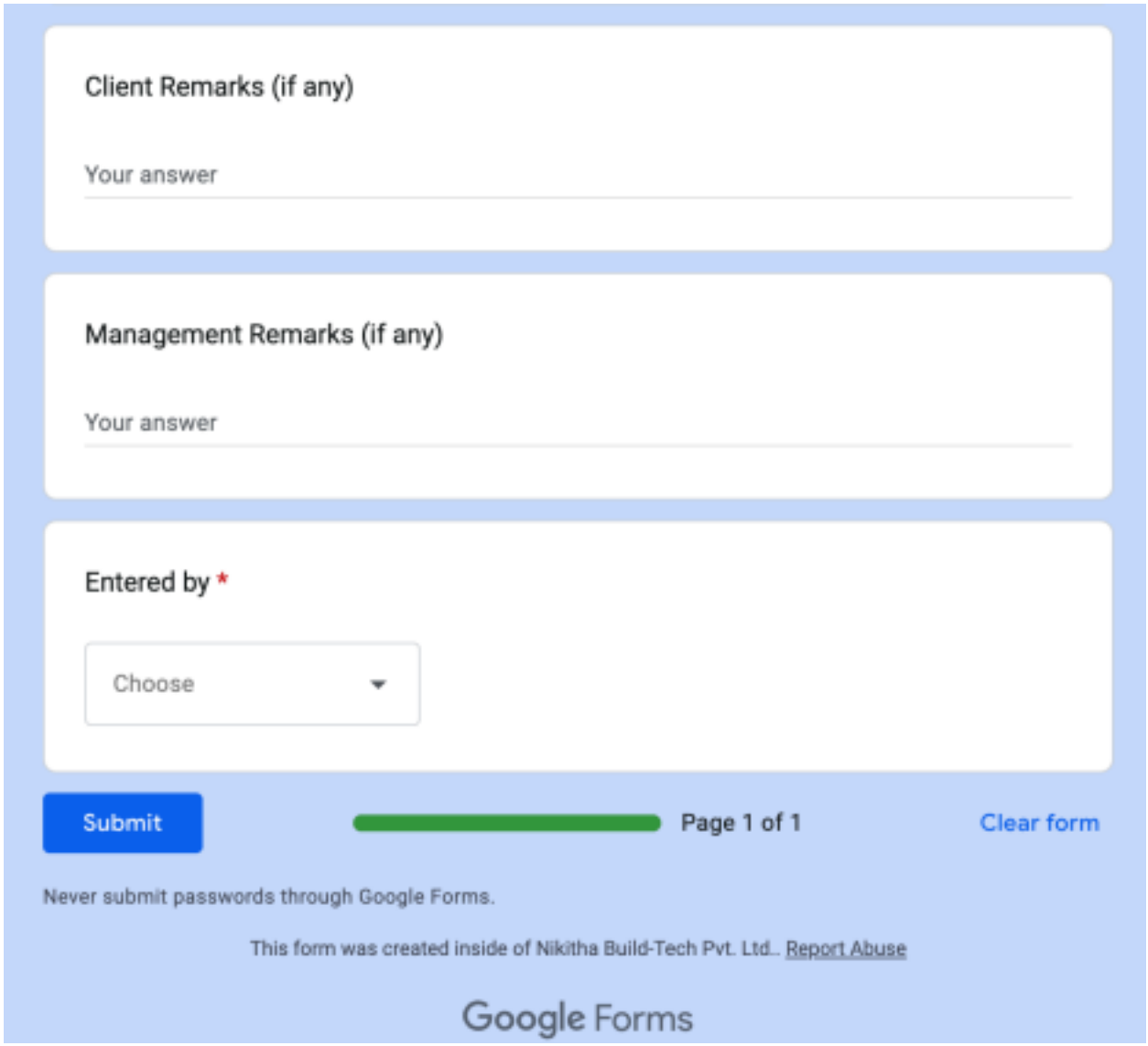
- [ ] Crane 50 Ton
- [ ] Boom Lift
- [ ] Scissor Lift
- [ ] Crane 20 Ton
- [ ] Crane 16 Ton
- [ ] Crane 80 Ton
- [ ] Crane 30 Ton
- [ ] Crane 25 Ton
- [ ] Crane 12 Ton
- [ ] CRANE -OTHERS (Detail in remarks column)

EQUIPMENT (Hrs.)

Your answer

Diesel Consumption (Ltrs)

Your answer

1. 
Client Remarks (if any)
Your answer
Management Remarks (if any)
Your answer
Entered by *
Choose
Submit
Page 1 of 1
Clear form
Never submit passwords through Google Forms.
This form was created inside of Nikitha Build-Tech Pvt. Ltd.. Report Abuse
Google Forms

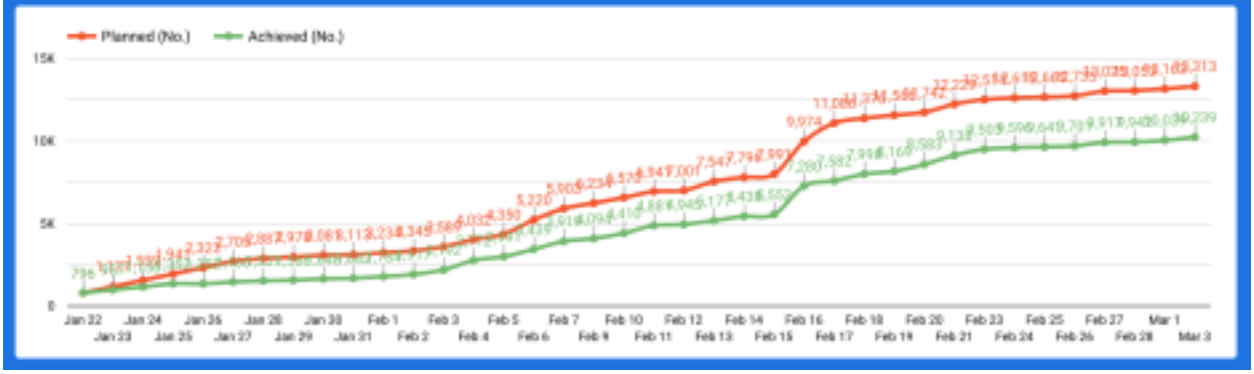
%Achievement
76.91

DMR PROJECT PLANNED VS ACHIEVED

NIKITHA

Select date range

Date	Remarks	Planned (No.)	Achieved (No.)	%Achieve
Mar 3, 2023	-	150	208	-
Mar 1, 2023	-	110	97	-
Feb 28, 2023	-	28	35	-
Feb 27, 2023	-	290	216	-
Feb 26, 2023	-	70	60	-
Feb 25, 2023	-	50	45	-
Feb 24, 2023	-	101	93	-
Feb 23, 2023	-	285	365	-
Feb 21, 2023	-	487	555	129
	Grand total	13,313	10,239	91.79



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