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| Co-Working Space Management System (Co-Work) |
| Proposal From Banyan Intellectual Initiatives (CIE) |
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| Version: 3.0 |
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| Author: Raghu Chandra Prodduturi |
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| About the Document | | | |
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| Revision History | | | |
| **Version** | **Date** | **Description of Change(s)** | **Author(s)** |
| 1.0 | 16-08-14 | Incorporated detailed description of the implementation needed for CIE’s proposed Co-Work platform. | Raghu Chandra Prodduturi |
| 2.0 | 08-09-2014 | Specifics about UX, UX Flow and functionalities | Raghu Chandra Prodduturi |
| 3.0 | 14-09-2014 | Implemented all the changes after the meeting with the student team on 12-09-2014 | Raghu Chandra Prodduturi |

1. Executive Summary
   1. About Occult IT Labs

IIIT Hyderabad incubator known as the Centre for Innovation and Entrepreneurship (CIE) at the IIIT-H Foundation provides an environment and an ecosystem for technology commercialization and entrepreneurial action.

* To build an ecosystem beyond geographical boundaries for cutting edge R&D in the CIE thrust areas
* To help and support start-ups in building technology-differentiated products and in taking them to market
* To engage with student communities and foster the entrepreneurial mindset through curriculum rigor and industry interactions
* To enable technology commercialization by bridging the gap between research and market

The CIE is housed as part of the IIIT-H Foundation on the IIIT-H premises and encourages entrepreneurs from both inside and outside the IIIT-H community in their endeavours.

1. Models Followed
   1. Introduction

We have three different models that we follow to support startups in the ecosystem.

1. Launchpad
2. Propel
3. Leased Spaces

**2.1.1. Launchpad**

Launchpad is a co-working space that provides plug and play desks for lease to startups. We currently have a premises extending across 16,000 square feet of space hosting 44 companies seated in around 150 desks overall.

**2.1.2. Propel**

Propel wing hosts the incubated companies which are our portfolio companies. We help startups in Propel grow by proving them a suite of services such as Mentorship, Free premises for a certain duration and discounted rated after that and seed funding between Rs. 5,00,000 and Rs. 25,00,000 in exchange for an equity of 8% to 10% in the startup. We invested in over 12 companies till date with 9 companies present in Propel space and 3 companies with their premises off campus.

**2.1.3. Leased Spaces**

We provide furnished leased spaces to growing companies and large startups. The spaces are as small as 250 square feet to something as large as 4,500 square feet. We currently have around 7 companies leasing our space through this model.

1. Platform Description

Managing large co-working spaces/incubators is a tough task considering the typical strength of the managing team in incubators across the globe. We will be requiring platforms that can automate most of the mundane tasks so that the managing team can concentrate better at providing services that can scale the startup.

Co-Work aims at implanting a suite of features that can easily manage the following tasks.

1. Startups Details
2. Space management
3. Invoice management
4. Template Document Management
5. Scheduling
6. Calendar Management
7. Dashboard

**3.1.1. Startups Details**

This helps in managing all the details of the startups such as desks allotted, number of employees, domain of work, one line description of the product, employee details etc.

**3.1.2. Space Management**

This helps in managing the desk allocation and room allocation process for the startups. This is more of a graphical view of the space that links to Startup Details page.

**3.1.3. Invoice Management**

Invoices are of four kinds, rental invoices, payment invoices, loan recovery invoices and reimbursement invoices. We will need a module that can help automate generation of invoices that depend on standard templates.

**3.1.4. Template Document Management**

We will be providing a couple of standard documents to startups quite frequently such as address proof document etc. We will need a module that can make it easy to generate such documents.

**3.1.5. Scheduling**

One of the key module. We need a calendar management system that enables access the managing team and the startup employees to schedule resources such as mentor slots, meeting rooms, events room etc.

**3.1.1. Calendar Management**

We will need integration from Google Calendar that pools up details about all the events happening. We have three types of events that we monitor

1. Events in CIE
2. Events in Hyderabad apart from CIE
3. All india events

**3.1.7. Dashboard**

Finally we will be needing a dashboard that can consolidate all the key parameters that we monitor.

A detailed description and feature list of all the modules will be provided in the next version of the document

1. Deliveries

**4.1 Web Portal**

The first key deliverable will be the web portal that implements all the above listed modules.

**4.1 Mobile App**

Depending on the time constraints the second key deliverable will be a mobile app that can extend the details from web portal only to consume the data for most of it. One feature that we would like to implement will be the scheduling module from the mobile app itself.

1. Modules

**5.1 Home Page**

The menu on the home page should have all the essential tabs, a brief of each tab will be provided below. The home page layout should be having a structure as in QuickBooks with a fixed menu on the left pane and the content of each tab being shown in the right pane.

1. Dashboard
2. Spaces
3. Startup Details
4. Invoices
5. Scheduler
6. Document Templates

**5.2 Dashboard**

Dashboard should feature basic graphs of the vital data that has to be monitored. The following graphs are needed

1. Graph of number of startups being added and number of startups leaving the space for each space plotted over each month.
2. Graph on net revenue for each space (calculate from income and expenses from the invoices module)
3. Weekly number of hours of meeting room usage for all meeting rooms (get data from scheduler module)
4. Number of events conducted each month (get it from calendar module)

**5.3 Spaces**

The startups are divided into three spaces as mentioned earlier

1. Launchpad
2. Propel
3. Leased space

A list of startups in each space has to be provided individually in this tab. Option should be given to

1. Create new space
2. Create new startup page
3. Edit/Delete existing space
4. Edit/Delete existing startup

A new space should be have the following options covered

1. Select option of Room/Co-working space
2. For a space with rooms we need to be given an option of creating rooms on left and right side of the corridor.
3. For a coworking space an option of creating rows of desk on left and right side of the corridor should be given along with number of desks in each row.

Spaces should be created automatically after selecting the appropriate options.

**5.4 Startup Details**

Upon clicking on any particular Startup it should be redirected to the startup page. Each startup will have the following details

1. Space it belongs to
2. Desk numbers or room number depending on the space selected.
3. If room number then area of room and number of desks in the room should be automatically populated with an option of entering manual values.
4. If desks, number of desks along with desk numbers should be provided.
5. Documents present such as lease agreement etc, date of creation of document and valid till date of document.
6. Joining date for startup
7. Ending date for startup
8. Current status of startup (present in space or left space)
9. Number of employees
10. Employee details (Name, age, gender, designation, email ID, mobile, photo) with an option of selecting a primary contact.
11. Domain of startup
12. One line description of startup
13. Web address
14. Linked invoices (any invoice created for the startup should appear here)
15. Linked Scheduled resources (any resources such as meeting rooms or mentor scheduled by the startup should be visible here).

A history log has to be maintained with the same details being captured every month for each startup. Details such as desk numbers, meeting rooms availed etc keep changing every month and we should be given an option to select the year and month and depending on the month selected all the above details should be showcased for that startup.

**5.5 Invoices**

We have two different types of invoices being generated.

1. Income invoice
2. Expenditure invoice

For income invoice we typically have three different kinds of income we get

1. Rental invoice – rents being collected from startups
2. Events room fee (income) – fees charged to lease events room to startups
3. Sponsorships for events

We should be having a provision to shoot out rental invoices to the primary contact of each startup on a pre-set date. The structure of the rental invoice will be sent as a template document.

For expenditure we have only one template. The structure for invoice will be provided as a template document. Each invoice will basically have the following details

1. Date
2. Person addressed to
3. Subject
4. Description
5. Table with serial no., cheque no., bill date, bill description, amount and total.
6. Beneficiary name
7. Account header
8. Enclosures (bills or receipts)
9. Signature provision

Each and every income invoice, we should have status flags (Overdue, confirmed or pending).

Overdue – if the payment hasn’t been made yet

Pending – if the payment has been made by the company/startup but hasn’t been confirmed by us

Confirmed – if the payment is confirmed by us

We should get a monthly report after 15th of every month with a consolidated list of pending and overdue payments as separate lists (as an option in invoices tab itself).

**5.6 Scheduler**

A simple resource scheduler such as PHPScheduleIT. This is used to do the following

1. Create category
2. Create resource under a category
3. Set available date and time (with options for hours range and date range to be specified)
4. Set slot size (15 mins, 30 mins etc)
5. Set overall time limit per day per resource category for startups.
6. Open access to all startups to avail a resource. All they have to do is enter their email ID and password, select the resource, select the slot and book the resource. Upon submitting the request, the system should be able to verify the email ID from the employee details and password from the database. If the details match a slot should be reserved on the calendar on the startup name that employee belongs to.
7. The calendar and slots reserved should be visible to anyone. You can use any calendar web app needed or create your own calendar depending on your convenience.

There should be two options for pre-booking a resource.

1. Resource slots open up from the date of creating the resource
2. Resource slots open up one week in advance.

**5.7 Document Templates**

A list of all the templates and editable content in those templates will be provided.

1. Technologies
2. **PHP – server side**
3. **MySQL – database**
4. **RESTful – web service creation**
5. **Java and Objective C – mobile app (if time permits)**
6. References

**1. Co-Bot – co-working space management tool**

**2. QuickBooks – invoice management**

**3. PHPScheduleIT – calendar management**

**4. Google Calendars APIs**

**5. Redbus/Bookmyshow – graphical representation of space**