

1. Creating a page 'Add Applicants' for the HR department of the organization which can add the details of the prospective employees of the organization. The details needed here are name, email id, phone number, educational qualification: 10<sup>th</sup> %, 12<sup>th</sup> %, Diploma, Highest Qualification (Degree), Specialization (Domain/Field), Work Experience, Interested field and image of the person who is applying. Once the person has applied, they will get an email from the organization acknowledging the receipt of their application to the organization.
2. For viewing the applicants who have applied and make a decision on their application, a Show applicants page is created which displays data of all the applicants who have applied to the organization till date. It also contains a functionality of deleting applicants from the list which do not meet the requirements of the organization.
3. Database was designed for the project in MS Excel so that a clear path can be made visible to design the project with an ease. The database of the system in MS Excel contains entities such as Table Name, Field Name, Data Type for the field and Remarks. The Remarks column deals with remarks such as whether the field is given Primary Key, Foreign Key or Auto Increment so that a relationship can be established between various departments of the organization.
4. Various pages (forms) in the project had many other subpages, which are not supposed to displayed in the navigation panel. Giving access to a page, eventually used to give access to other subpages linked to them. This made it tough to give access to those sub-pages only to the concerned users. To overcome this, a new field, 'show\_in\_nav' was added in database table 'form' and all the pages including the sub-pages were added in the table. Now if the field is set (1), that page is shown in the Navigation panel. At the same time, admin gets more control over the system, as he can now decide the access to each and every part of the system including subpages.
5. User password was directly stored into the database under password field of user table, which was a very insecure way to store the password. To resolve this, before storing the password into database, it is passed through SHA-1 hashing cryptographic function to create a 160 bit hex code. Necessary changes were made in all the pages. At the time of login, input

- value is first passed through SHA-1 and the digest is then matched with the value in database. Changes in the reset password mechanism was also altered.
6. An autogenerated alphanumeric field 'user\_registration\_number' was added in user table, to uniquely distinguish users. The format of id was set something like 'USR00001'. To achieve this, the last record was first fetched from database, prefix "USR" splitted and the number part is incremented. After padding zeros (0) before number, the prefix is rejoined and the new id is generated.
  7. Previously there was a delete facility kept to remove a user out of system. But it was discovered, this would lead to lose ends in future. To clarify, if a user is deleted from the system, there would be no reference to all the activities he did in the system. For an instance, if a user, say inventory manager adds a raw material in the system. Hence a record would be registered stating addition of the raw material, by that user. Now if this user would be deleted, there would be no reference to the person who added the raw material.

To overcome this, deletion was removed and a new feature 'status' was introduced. Status of a user could either be Active or Inactive and could be managed by the admin. If a user is made inactive, he can't login to the system, hence would lose total access to the system. It is similar to deletion, but here Admin would have record of the former users. Also, admin can anytime re-activate user's account.

Similar changes were made in Vendor page, as well as raw material page.

8. Also, previously admin had the right to delete his own account, even after being logged in to the system, which leads to undesired results. Hence, this was fixed and now any logged in user can't delete his own account.

### Screenshots:-

This screenshot shows the top portion of the 'Add New Applicants' web form. The page has a light gray header with the title 'Add New Applicants' on the left and a breadcrumb trail 'Home / Add Applicant' on the right. Below the header is a blue bar labeled 'New Applicant'. The form fields are as follows:

- Name:** A text input field with the placeholder 'Enter Name'.
- Email Address:** A text input field with the placeholder 'Enter Email'.
- Phone Number:** A text input field with the placeholder 'Phone Number'.
- Educational Qualification:** A section containing two text input fields:
  - 10th (%):** A text input field with the placeholder 'Enter 10th Standard Percentage'.
  - 12th (%):** A text input field with the placeholder 'Enter 12th Standard Percentage'.

Fig 9.1 Add Applicant Page (i)

This screenshot shows the bottom portion of the 'Add New Applicants' web form. The fields continue from the previous section:

- 12th (%):** A text input field with the placeholder 'Enter 12th Standard Percentage'.
- Diploma (%):** A text input field with the placeholder 'Enter Diploma Percentage'.
- Choose your highest qualification:** A dropdown menu.
- Choose your Specialization:** A dropdown menu.
- Work Experience:** A text input field with the placeholder 'Enter Work Experience in years'.
- Interested Field:** A text input field with the placeholder 'Enter Area or Field of Interest'.
- Person Image:** A section with a text input field containing 'Choose file' and a 'Browse' button.

At the bottom left of the form is a blue 'Submit' button.

Fig 9.1.2 Add Applicant Page (ii)

Home Profile

Available Applicants [Home](#) / [Show Applicants](#)

Available Applicant's List





Image	Name	Email	Contact Number	10th (%)	12th (%)	Diploma (%)	Highest Qualification
	Rahul	abc@xyz.com	9876543210	89%	75%	NA	B.Tech
	Vraj Patel	vrajkp99@gmail.com	9876543210	90%	80%	NA	B.Tech
	Rahul Brahmabhatt	rahulbrahmabhatt13@gmail.co	9033969150	89%	80%	na	B.Tech
	Harsh	harshp1898@gmail.com	8511540008	90%	80%	NA	B.Tech

Fig 9.2 Show Applicant Page



<div><div><div></div><div></div><div></div></div></div>				form_id	form_name	form_file	show_in_nav
<input type="checkbox"/>				1	Designation	designation.php	1
<input type="checkbox"/>				2	Edit Designation	editDesignation.php	0
<input type="checkbox"/>				3	Users	users.php	1
<input type="checkbox"/>				4	Add User	addUser.php	0
<input type="checkbox"/>				5	Edit User	editUser.php	0
<input type="checkbox"/>				6	Vendors	vendors.php	1
<input type="checkbox"/>				7	Add Vendor	addVendor.php	0
<input type="checkbox"/>				8	Edit Vendor	editVendor.php	0
<input type="checkbox"/>				9	Raw Materials	rawMaterials.php	1
<input type="checkbox"/>				10	Ordered Raw Materials	orderedRawMaterials.php	1
<input type="checkbox"/>				20	Add Applicant	addApplicant.php	1
<input type="checkbox"/>				21	Show Applicants	availableApplicants.php	1
<input type="checkbox"/>				22	Request Fund	requestFund.php	1
<input type="checkbox"/>				23	Fund Status	statusFund.php	1
<input type="checkbox"/>				42	Add Raw Material	addRawMaterial.php	1
<input type="checkbox"/>				43	Available Raw Materials	availableRawMaterials.php	1
<input type="checkbox"/>				44	Order Raw Material	orderRawMaterial.php	1
<input type="checkbox"/>				45	Return Raw Material	returnRawMaterial.php	1
<input type="checkbox"/>				46	Add Product	addProduct.php	1
<input type="checkbox"/>				47	Available Products	availableProducts.php	1

Fig 9.3 Changes in the database (show\_in\_nav)

	user_id	user_reg_num	user_name	email	password	designation_name
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	USR00001	Rahul Tiwari	rahulbt2016@gmail.com	31c4a6b131f3e4c1e6897bb98e2a2a0ee0543ba1	Admin
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2	USR00002	Rahul Brahmbhatt	rahulbrahmbhatt1811@gmail.com	31c4a6b131f3e4c1e6897bb98e2a2a0ee0543ba1	HR
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	3	USR00003	Harsh Patel	harshp1898@gmail.com	31c4a6b131f3e4c1e6897bb98e2a2a0ee0543ba1	Inventory Manager

Fig 9.4 Password passed through SHA-1 hashing cryptographic function to create a 160 bit hex code

	user_id	user_reg_num	user_name	email
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	USR00001	Rahul Tiwari	rahulbt2016@gmail.com
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2	USR00002	Rahul Brahmbhatt	rahulbrahmbhatt1811@gmail.com
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	3	USR00003	Harsh Patel	harshp1898@gmail.com

Fig 9.5 Changes in the database (user\_reg\_num)

[Home](#)
[Profile](#)

localhost says  
 Delete designation 'Admin' ?
 

OK Cancel

Edit Designation Form

Edit Designation

Designation

Admin

Approximate Monthly Salary (₹)

100000

Give Access:

☒ Designation  
☒ Edit Designation  
☒ Users  
☒ Add User  
☒ Edit User  
☒ Vendors  
☒ Add Vendor  
☒ Edit Vendor  
☒ Raw Materials  
☒ Ordered Raw Materials

Existing Designations

Designation	Edit	Delete
Admin	<a href="#">Edit</a>	<a href="#">Delete</a>
HR	<a href="#">Edit</a>	<a href="#">Delete</a>
Inventory Manager	<a href="#">Edit</a>	<a href="#">Delete</a>

Fig 9.6 Active user deletion (i)

Home
Profile

localhost says  
Sorry, designation can't be deleted. There are active users currently assigned to this designation.

Edit Designation Form

Edit Designation

**Designation**  
Admin

**Approximate Monthly Salary (₹)**  
100000

**Give Access:**

- ☒ Designation
- ☒ Edit Designation
- ☒ Users
- ☒ Add User
- ☒ Edit User
- ☒ Vendors
- ☒ Add Vendor
- ☒ Edit Vendor
- ☒ Raw Materials
- ☒ Ordered Raw Materials

Home / Add Designation / Edit Designation

Existing Designations

Designation	Edit	Delete
Admin	<a href="#">✎</a>	<a href="#">✖</a>
HR	<a href="#">✎</a>	<a href="#">✖</a>
Inventory Manager	<a href="#">✎</a>	<a href="#">✖</a>

Fig 9.6.2 Active user deletion error (ii)

List of all Users								
Registration Number	Name	Email	Designation	Salary	Phone	Status	Edit	Deactivate
USR00001	Rahul Tiwari	rahulbt2016@gmail.com	Admin	95000	9924483264	ACTIVE	<a href="#">✎</a>	<a href="#">✖</a>
USR00002	Rahul Brahmhatt	rahulbrahmhatt1811@gmail.com	HR	95000	9033969150	ACTIVE	<a href="#">✎</a>	<a href="#">✖</a>
USR00003	Harsh Patel	harshp1898@gmail.com	Inventory Manager	75000	9624702340	ACTIVE	<a href="#">✎</a>	<a href="#">✖</a>

Fig 9.7 Active users

List of all Users <span>⊕</span> <input type="text" value="Search"/> <span>Q</span>									
Registration Number	Name	Email	Designation	Salary	Phone	Status	Edit	Deactivat	
USR00001	Rahul Tiwari	rahulbt2016@gmail.com	Admin	95000	9924483264	ACTIVE	<a href="#">✎</a>	<a href="#">✖</a>	
USR00002	Rahul Brahmbhatt	rahulbrahmbhatt1811@gmail.com	HR	95000	9033969150	ACTIVE	<a href="#">✎</a>	<a href="#">✖</a>	
USR00003	Harsh Patel	harshp1898@gmail.com	Inventory Manager	75000	9624702340	INACTIVE	<a href="#">✎</a>		

Fig 9.7.2 Active users and Inactive (Disabled) User

USR00003

**Name**

**Designation**

**Monthly Salary (₹)**

**Email Address**

**Phone Number**

☒ Status : Active?

Save

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Fig 9.8 Inactive User Page

Home Profile

## Vendors

Home / Vendors

List of all Vendors

Registration Number	Name	GST Number	Email	Phone	Added/ Edited By	Status	Edit	Deactivate
VEN00001	Bholu Shah	22AAAAA0000A1Z5	bholushah112@gmail.com	7855447788	USR00001	ACTIVE		
VEN00002	Haresh Khan	24POAAA0000A1Z3	khanh@gmail.com	9955663322	USR00001	ACTIVE		
VEN00003	Ram Kumar	22AAAAA0000A1Z3	ramkumar007@gmail.com	7411225566	USR00001	ACTIVE		

Fig 9.9 AvailableVendorsPage

### New Vendor

**Vendor Registration Number**

VEN00003

**Vendor Name**

Enter Vendor Name

Vendor Name field can't be empty

**Vendor GST Number**

Enter Vendor GST Number

Please enter a valid GST number (eg: 22AAAAA0000A1Z5)

**Email Address**

Enter Vendor email

Please enter a valid email address of vendor (eg: abc@xyz.com)

**Phone Number**

Vendor Phone Number

Please enter a valid mobile number (10 digit)

**Raw Materials**

Fig 9.10 Add New Vendor Page



rahulbt2016@gmail.com localhost says  
Please select atleast 1 Raw Material

**Phone Number**  
0992448328

**Raw Materials**

Select Raw Materials that Vendor keep:

Showing all 16 Empty list

Filter Filter

>> <<

Basic Plastics  
Brass  
Castings  
Chains  
Copper

Submit

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Fig 9.11 Add Raw Materials Page

Home Profile

Raw Materials Home / Raw Materials

**List of Raw Materials** Search

Code	Name	Available Quantity	Added By	Status	Disable/Enable
RWM00005	Basic Plastics	0	USR00001	ENABLED	
RWM00002	Brass	0	USR00001	ENABLED	
RWM00009	Castings	0	USR00001	ENABLED	
RWM00015	Chains	0	USR00001	ENABLED	
RWM00004	Copper	0	USR00001	ENABLED	
RWM00012	Corners	0	USR00001	ENABLED	
RWM00006	Engineered Plastics	0	USR00001	ENABLED	
RWM00008	Fittings	0	USR00001	ENABLED	

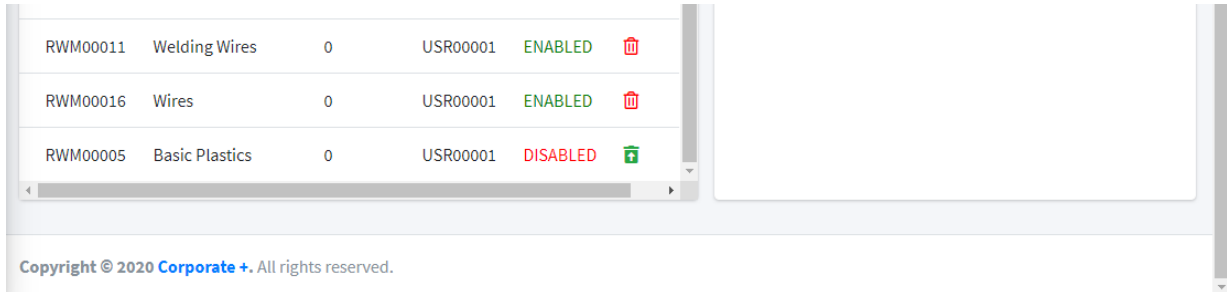
**Add New Raw Material**

**Raw Material Code**  
RWM00017

**Raw Material Name**  
Enter Raw Material Name

Submit

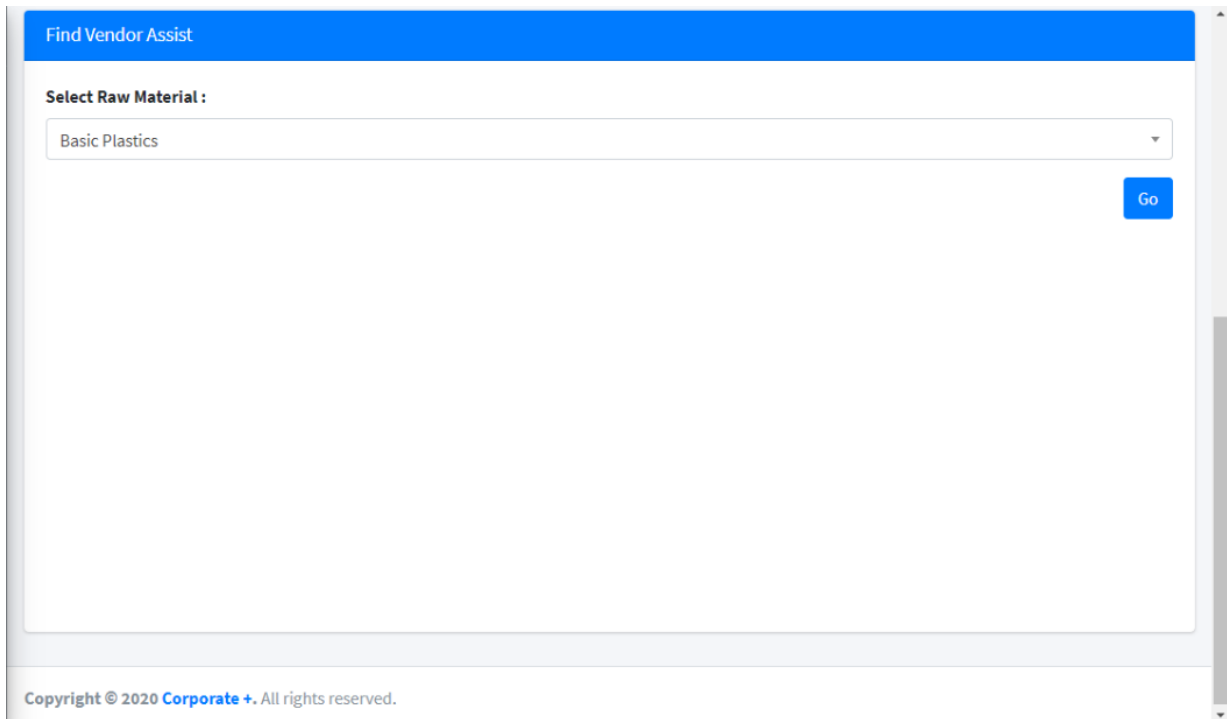
Fig 9.12 Available Raw Materials



RWM00011	Welding Wires	0	USR00001	ENABLED	
RWM00016	Wires	0	USR00001	ENABLED	
RWM00005	Basic Plastics	0	USR00001	DISABLED	

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Fig 9.13 Disable raw material



Find Vendor Assist

Select Raw Material :

Basic Plastics

Go

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Fig 9.14 Find Vendor Assistant (i)

Find Vendor Assist

Select Raw Material :

Welding Wires

Go

Vendors having Raw Material - Welding Wires :

Registration Number	Name	Email	Phone
VEN00001	Bholu Shah	bholushah112@gmail.com	7855447788
VEN00002	Haresh Khan	khanh@gmail.com	9955663322
VEN00003	Ram Kumar	ramkumar007@gmail.com	7411225566

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Fig 9.14.2 Find Vendor Assistant (ii)