



**Tec Galaxy**

## **420-ZT2-GX Professional Integration Project**

**Cegep de la Gaspésie et des Îles**

**Submitted To**

Prof. Lucas Brancatella  
Prof. Sébastien Richer  
Prof. Sakshi Sharma

**Submitted By**

Heli Patel (1994098)  
Rushita Kheni (1994147)  
Vempati Sai (1995877)  
Parshadi Jariwala (1994459)

## **Index**

<b>Introduction</b>	<b>3</b>
<b>Purpose</b>	<b>3</b>
<b>Scope</b>	<b>3</b>
<b>Functional Requirements</b>	<b>4</b>
<b>Non-Functional Requirements</b>	<b>6</b>
<b>Use case Diagram</b>	<b>7</b>
<b>Class Diagram</b>	<b>9</b>
<b>Sequence Diagram</b>	<b>10</b>
<b>Entity relationship Diagram</b>	<b>14</b>
<b>Database schema</b>	<b>15</b>
<b>References</b>	<b>20</b>

## **Introduction**

The digital market of hardware components is growing expeditiously in the contemporary world. Our Tec Galaxy Website is focused on delivering digital hardware products where user can surf through our simple and smartly crafted website with a further option to build user specific customized machines. This user-friendly website is for the people who are looking to get their hands on to the hardware products and components even if they have zero knowledge about it. The website includes an additional feature where the user can simply fill up the questionnaire and the users are provided with a list of components from which, they can choose accordingly.

As the name suggests Tec Galaxy – It is the galaxy of the digital technological machines as well as hardware products and components.

## **Purpose**

The main objective of this website is to supply hardware products and components for Desktops, Pc's online, where the user can signup to purchase any of the products. Our website also provides the flexibility to the users to build customizable products/machines according to their required specifications with an additional feature of user specific questionnaire which provides with a list of products.

## **Scope:**

- **Scope Statement:**

This third-party website is to sell hardware products. This website has some interesting features such as AI advisor help, build your own machine, customizable products, etc.

- **Deliverable:**

- Admin panel
- Product module
- Filter module

- Assembly module
- AI advisor/reparation
- Cart/Buy product/s module
- Payment Gateway
- Invoice Generation
- **Out of scope**
  - Online Payment gateway(fornow)
  - Comment/like module
- **Milestone**
  - Creating admin panel
  - Product display
  - Filtration module
  - Machine assemble module
  - Creating AI advisor
  - Reparation
  - Payment gateway
  - Cart, orders/invoice module
- **Assumptions**
  - Registered device has access to the internet.
  - User can read and understand English.
  - Users who are using Assembling machine feature has no idea about the components required to build up a specific machine but has slight idea on few of the features.
  - Users who are tempted to use AI advisor help has no knowledge either about the machine nor the components.
- **Technology used:**
  - Front end: Angular
  - Back end : firebase

## Functional requirement

Requirement Id	Requirement	Comment
FR01	Guest users should allow to view products and do customization without sign in/sign up.	So that the users can easily surf through the website.
FR02	User must sign up to access all the features of the website.	User can create an account to access the services of the website.
FR03	Sign in is required to make transactions on the website.	To add more security and accessibility to the user account.
FR04	Sign Up/sign in email must be in correct format as well as Password must be at least 8 to 10 characters long with at least a single special character with the combination of upper and lowercase alphabets.	To enhance user security.
FR05	Admin can signup using correct email format and a valid password containing at least single special character, lowercase letter, uppercase letter, a number with at least 8 characters long.	To create an account for admin to gain control over the database of the website.
FR06	Admin can add new/delete/modify product to the website.	So, the admin can handle the products inventory.
FR07	Admin can deactivate a user.	So, the admin can help manage users who repeatedly try to cheat with the shipment and delivery status.
FR08	Admin can add/remove the deals.	So that admin can apply these deals to the multiple products.
FR09	Users should be able to customize their own machine.	Users can have the features they want in their customised machine.
FR10	User can take advisor from the AI advisor questioner.	Even if the user has no knowledge about machines, they can manage to buy their

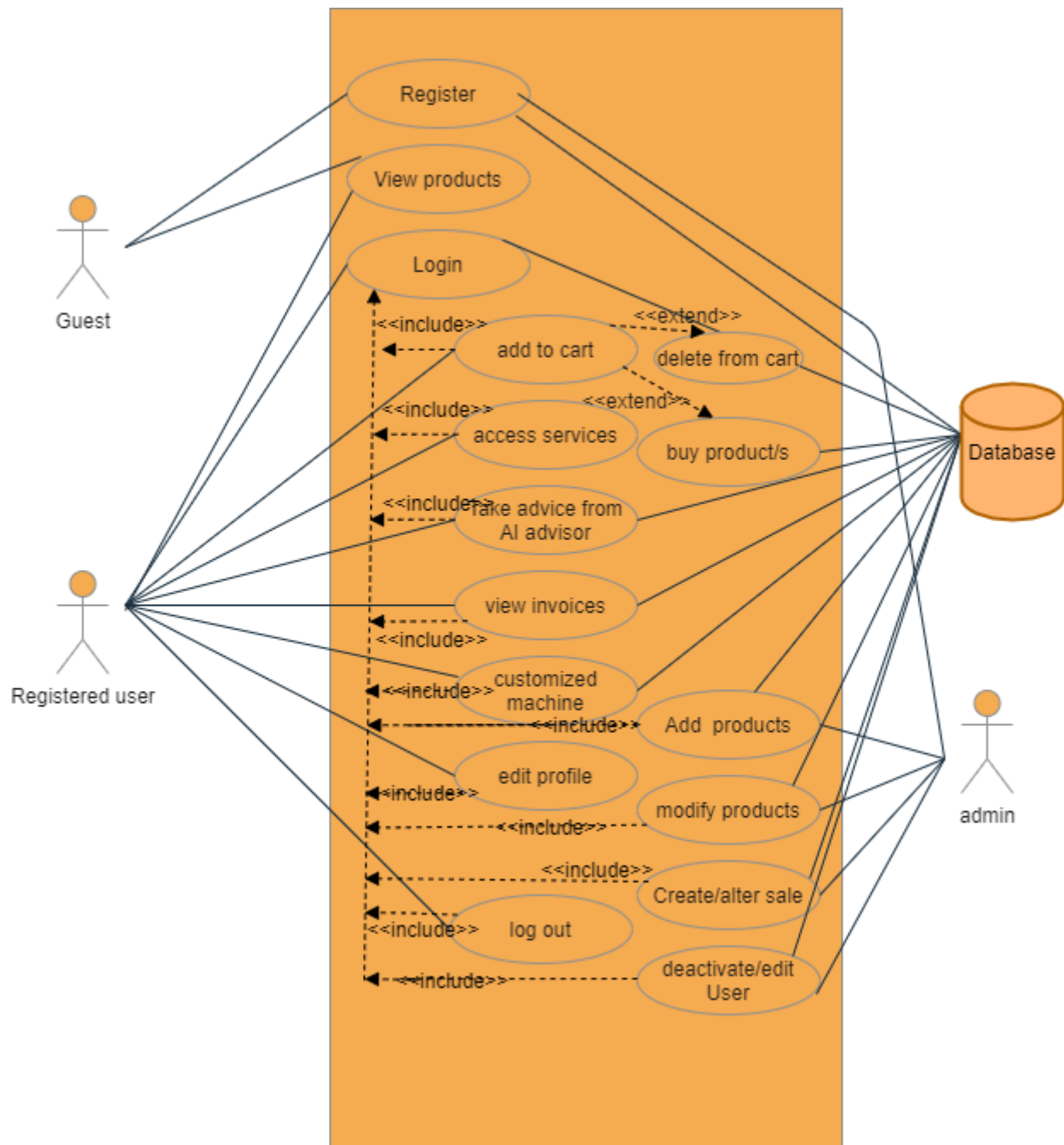
		machine according to their requirements.
FR11	User can access the repair services.	To give extra options to the users.
FR12	Registered user can update their personal profile.	So that user can easily change their details if anything changes.
FR13	Users can add multiple products to the cart as well as they can delete one from the cart.	So that they can conveniently buy products of their choice.
FR14	Registered users can see their invoice history.	To have access through the orders they have placed.
FR15	Registered user can buy products online.	To get more convenience.
FR16	Users can filter the products by name, category, price.	So that users can find desired products easily.

#### Non function Requirements:

Requirement Id	Requirement Status	Type
NFR01	The account must be accessed by authorised user with correct formatted email and valid password i.e, 8 characters long at least containing one upper and lower case combination and at least single special character.	Security
NFR02	Website will be accessible 24/7.	Availability.
NFR03	Website should load every page within 5 secs	Efficiency.
NFR04	User's personal data must be secured with a password.	Confidentiality

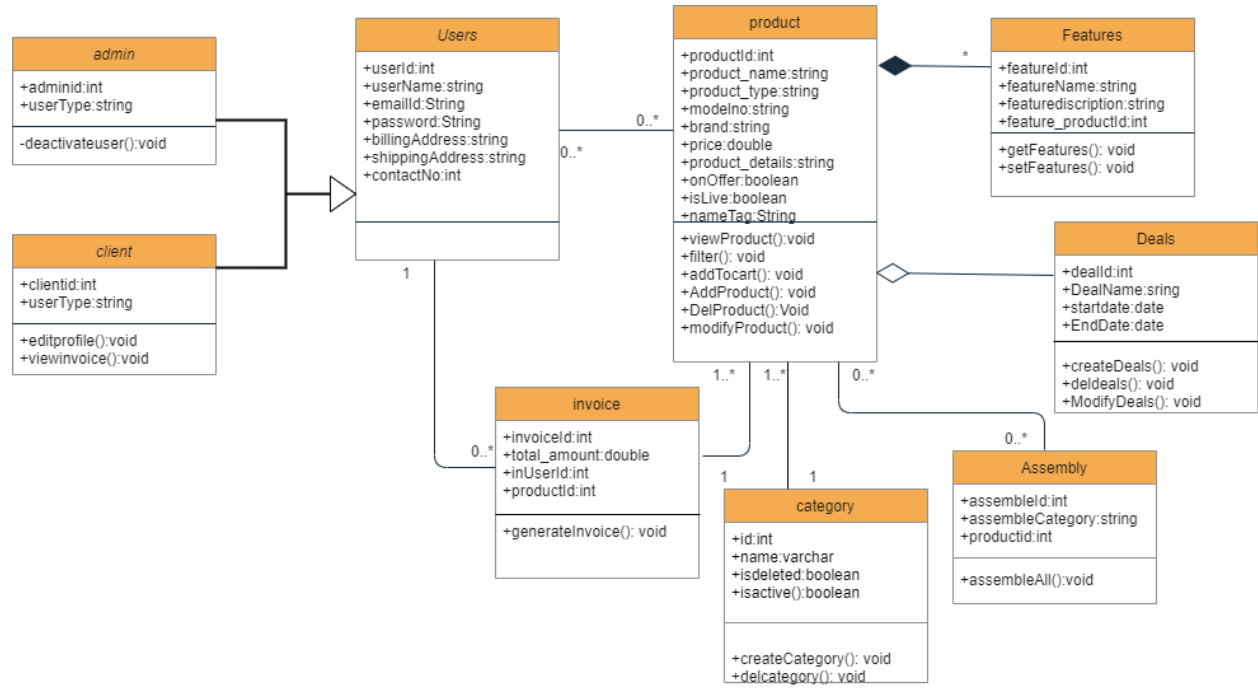
NFR05	Data of the website must be recovered after a failure.	Recoverability
NFR06	UI must be easy to understand for all the age groups above 11	Usability
NFR07	The website must be easy to maintain.	Maintainability
NFR08	System must handle heavy traffic efficiently.	Scalability
NFR09	Error with the invoice generation must be less than 0.99%	Integrity
NRF10	AI advisor should suggest the components which matches more than 90% of the user requirements.	Performance accuracy
NRF11	Displayed sale prices must be accurate almost 99.99%.	Accuracy

## UseCaseDiagram:





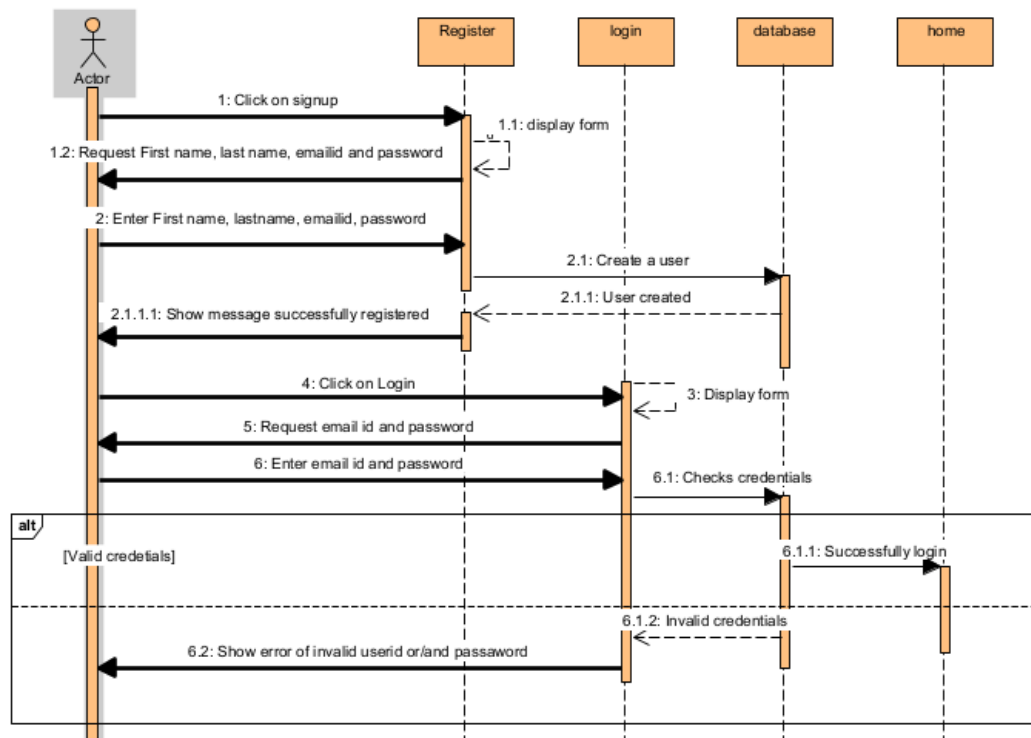
## Class Diagram:



## Sequence Diagram

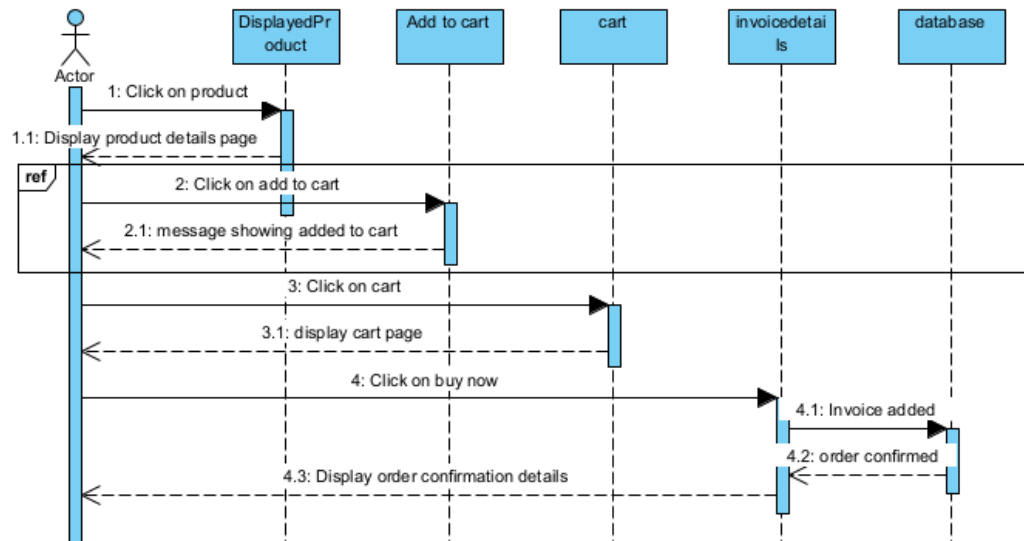
### Login/signup

sd login/signup



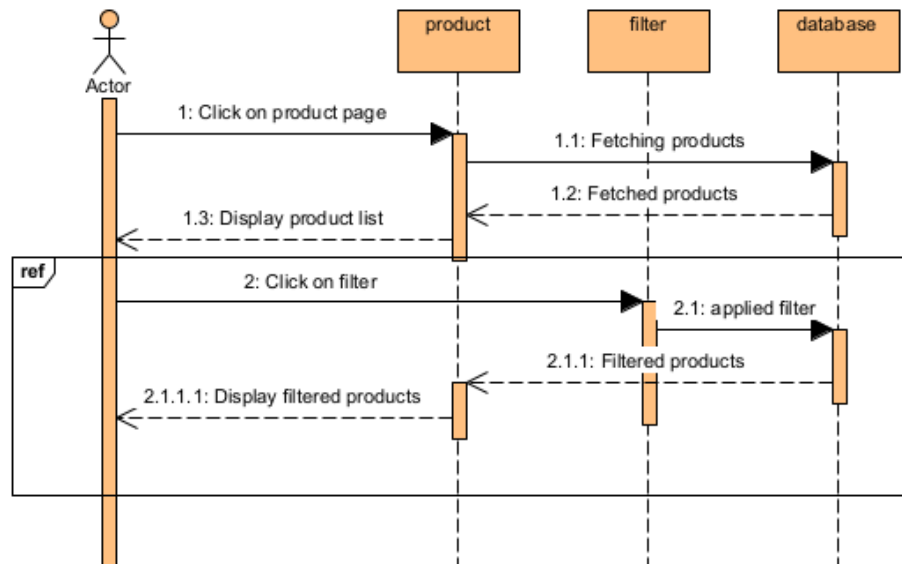
## productView/addToCart

sd addtocartBN



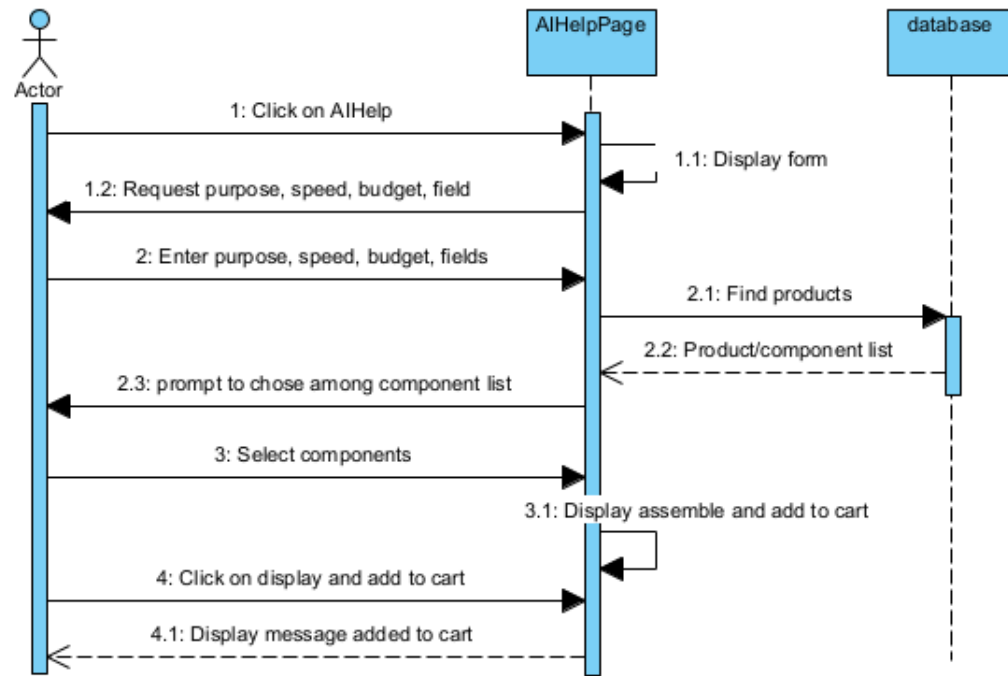
## Filter

sd filter



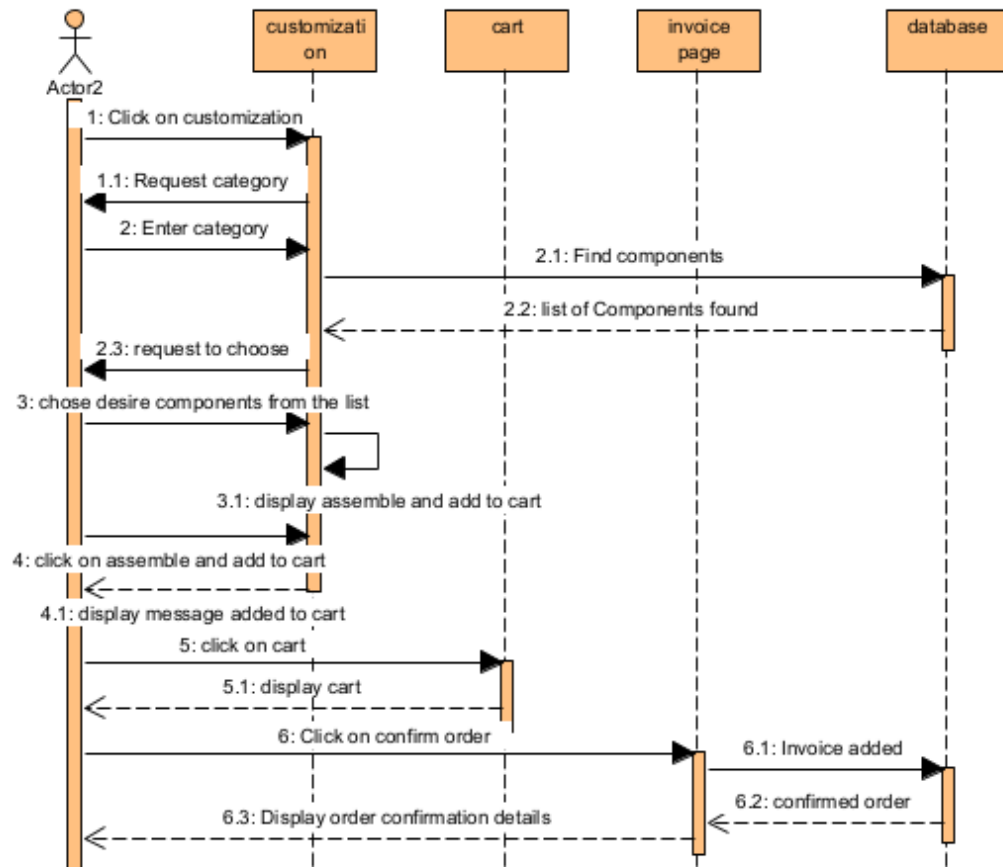
## AIHelp

sd aiHelp

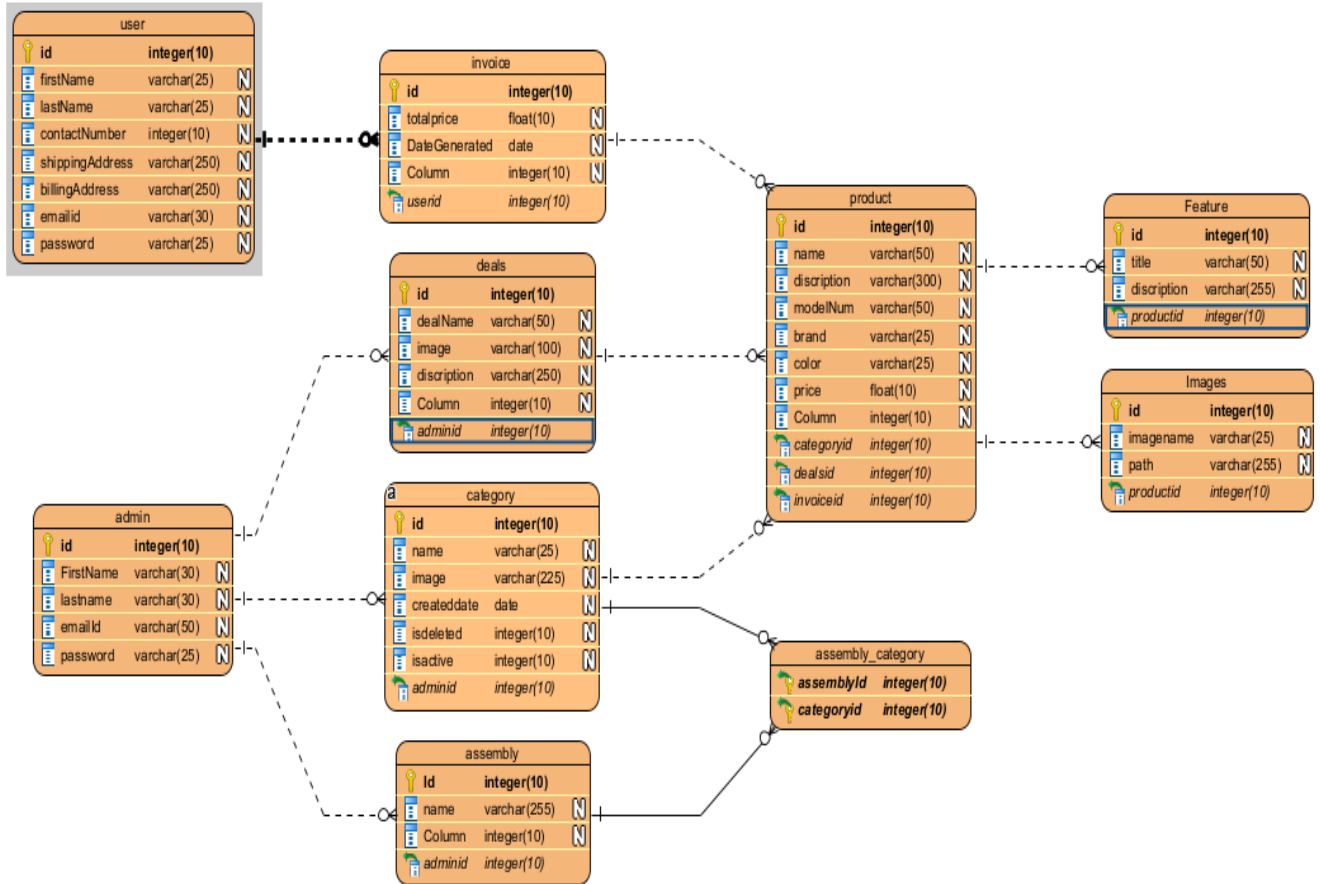


## Customization

sd customization



## ER diagram



## Database Schema

```
{
  "AllAdmins" : {
    "4bbuDoXjrYXgNO8ozdQoJOZnoo42" : {
      "email" : "xyz@gmail.com",
      "firstname" : "xyz",
      "lastname" : "xyz",
      "password" : "123456789",
      "userid" : "4bbuDoXjrYXgNO8ozdQoJOZnoo42"
    }
  },
  "AllDeals" : {
    "-M_pvG6q15Zc4AQMcfWU" : {
      "dealDescription" : "sdfsdf",
      "dealTitle" : "dsdsf",
      "enddate" : "2021-05-27T04:00:00.000Z",
      "id" : "-M_pvG6q15Zc4AQMcfWU",
      "imagepath" : "",
      "isActive" : false,
      "isdeleted" : false,
      "startdate" : "2021-05-20T04:00:00.000Z"
    }
  },
  "AllProducts" : {
    "-M_m1pszwdz1ebxAYoS0" : {
      "categoryId" : "-M_m1goAolsYfJKYM278",
      "categoryName" : "Keyboards",

```

```
"createBy" : "4bbuDoXjrYXgNO8ozdQoJOZnoo42",
"discountId" : "",
"discountName" : "",
"discountPercentage" : 0,
"enddate" : "",
"id" : "-M_m1pszwdz1ebxAYoS0",
"isActive" : false,
"isdeleted" : false,
"manufactureInfo" : 0,
"moreInfo" : [ "asdsadasd", "asdasdsffgdg", "asASDASD" ],
"productDescription" : "hp laptop",
"productImages" : 0,
"productName" : "hp printer 2",
"productPrice" : "1200",
"productTag" : 0,
"productcolor" : "black",
"produtBrand" : "HP",
"produtModelNo" : "hp-xxxx",
"returnPolicy" : 0,
"startDate" : "",
"tecSpec" : [ {
    "techSpec" : "dadasdasd",
    "techTitle" : "sadasd"
} ]
},
"-M_m21XmhXL5FpCVNrNI" : {
    "categoryId" : "-M_m1fO6SAUBfuyWNN1P",
```



```
"categoryName" : "Laptop",
"createBy" : "4bbuDoXjrYXgNO8ozdQoJOZnoo42",
"discountId" : "",
"discountName" : "",
"discountPercentage" : 0,
"enddate" : "",
"id" : "-M_m21XmhXL5FpCVNrNI",
"isActive" : false,
"isdeleted" : false,
"manufactureInfo" : 0,
"moreInfo" : 0,
"productDescription" : "ASAsSASDFDSFF F SD FD",
"productImages" : 0,
"productName" : "dell laptop",
"productPrice" : "1000",
"productTag" : 0,
"productcolor" : "Red",
"produtBrand" : "DELL",
"produtModelNo" : "dell-sdsd",
"returnPolicy" : 0,
"startDate" : "",
"tecSpec" : 0
}
},
"allcategories" : {
  "-M_m1fO6SAUBfuyWNN1P" : {
    "categoryname" : "Laptop",
```

```
"createdby" : "4bbuDoXjrYXgNO8ozdQoJOZnoo42",
"id" : "-M_m1fO6SAUBfuyWNN1P",
"imagepath" : "",
"isActive" : false,
"isdeleted" : false
},
"-M_m1goAolsYfJKYM278" : {
  "categoryname" : "Keyboards",
  "createdby" : "4bbuDoXjrYXgNO8ozdQoJOZnoo42",
  "id" : "-M_m1goAolsYfJKYM278",
  "imagepath" : "",
  "isActive" : false,
  "isdeleted" : false
},
"-M_m1i0mG9kBKSyXpsb" : {
  "categoryname" : "Printer",
  "createdby" : "4bbuDoXjrYXgNO8ozdQoJOZnoo42",
  "id" : "-M_m1i0mG9kBKSyXpsb",
  "imagepath" : "",
  "isActive" : false,
  "isdeleted" : false
},
"-M_q38dIVXSk2PyYC1on" : {
  "categoryname" : "cable",
  "createdby" : "4bbuDoXjrYXgNO8ozdQoJOZnoo42",
  "id" : "-M_q38dIVXSk2PyYC1on",
  "imagepath" : "",
```

```
"isActive" : false,
"isdeleted" : false
},
"-M_q3BaiNP6dioxeinKc" : {
  "categoryname" : "mouse",
  "cretedby" : "4bbuDoXjrYXgNO8ozdQoJOZnoo42",
  "id" : "-M_q3BaiNP6dioxeinKc",
  "imagepath" : "",
  "isActive" : false,
  "isdeleted" : false
},
"-M_q3EoCg6nyHZZ5hQhv" : {
  "categoryname" : "monitor",
  "cretedby" : "4bbuDoXjrYXgNO8ozdQoJOZnoo42",
  "id" : "-M_q3EoCg6nyHZZ5hQhv",
  "imagepath" : "",
  "isActive" : false,
  "isdeleted" : false
}
}
}
```

**References:**

<https://knowhow.visual-paradigm.com/uml/>

<https://material.angular.io/>

<https://angular.io/start>

[https://www.youtube.com/channel/UC80PWRj\\_ZU8Zu0HSMNVwKWw](https://www.youtube.com/channel/UC80PWRj_ZU8Zu0HSMNVwKWw)

**Github:**

<https://github.com/helipatel95/ComputerHardwareStore2021.git>