

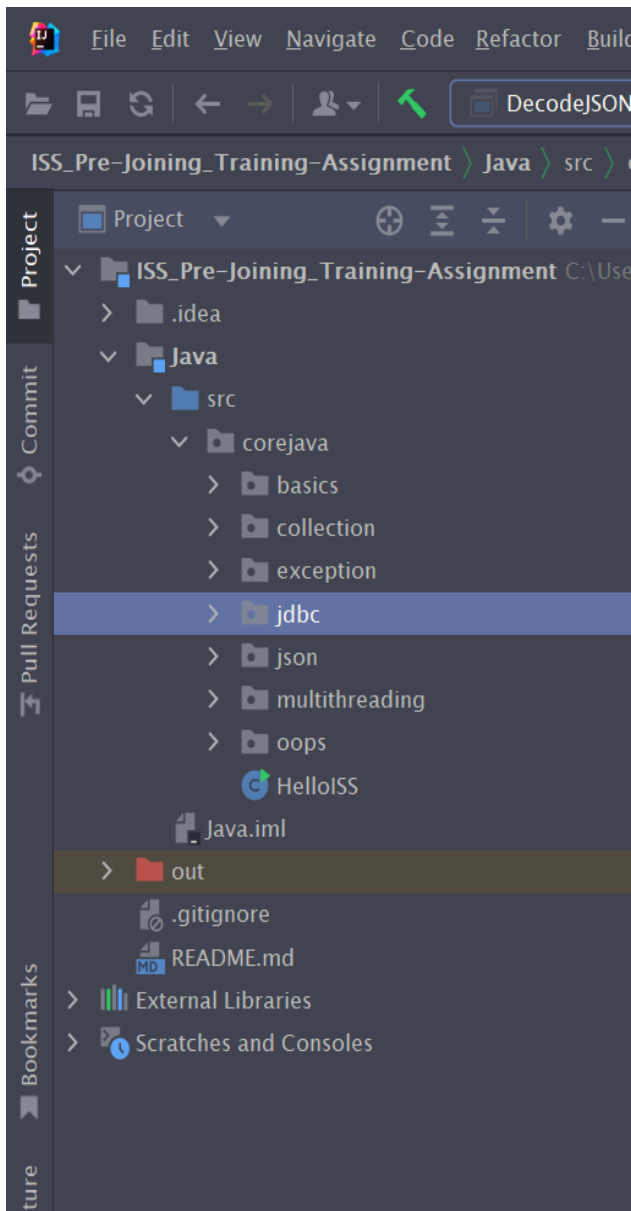
# ISS Governance

## Pre-Joining Training Assignment

By Siddharth Chatterjee

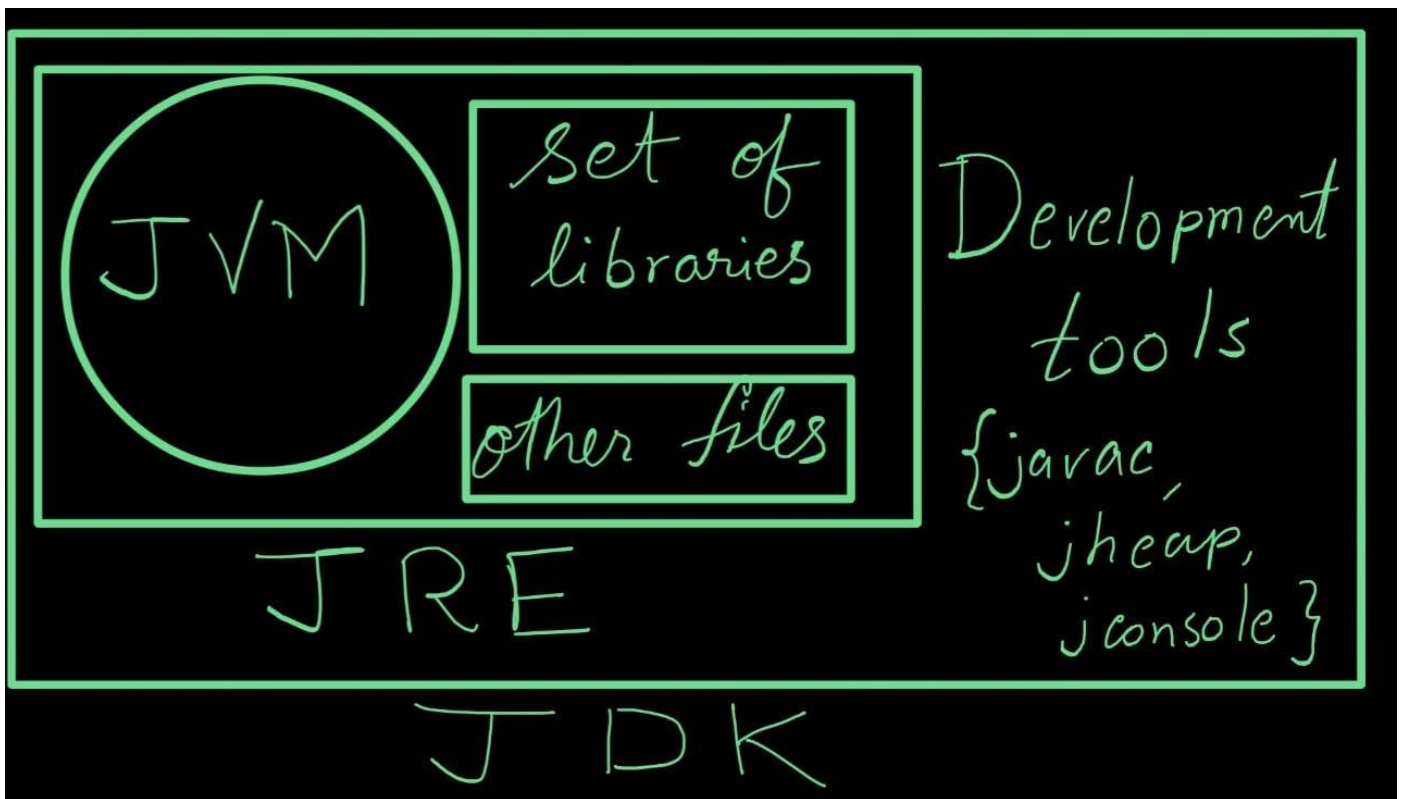
### CORE JAVA

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Core java refers to the basics of java ranging from:

- 1) Class, Object, instance variables and methods
- 2) Various data types, modifier types, final keyword
- 3) Extensive usage of Constructors throughout
- 4) Loop control and decision making
- 5) Strings, Arrays
- 6) OOPS principles:
  - > Abstraction
  - > Encapsulation
  - > Inheritance
  - > Polymorphism
- 7) Exception Handling
- 8) Collections – List, Set and Map
- 9) Multithreading
- 10) JSON – Encode and Decode
- 11) JDBC



Schematic representation of various components of the Java software and its various components

- JDK is a software development kit whereas JRE is a software bundle that allows Java program to run, whereas JVM is an environment for executing bytecode.
- The full form of JDK is Java Development Kit, while the full form of JRE is Java Runtime Environment, while the full form of JVM is Java Virtual Machine.
- JDK is platform dependent, JRE is also platform dependent, but JVM is not platform independent.
- JDK contains tools for developing, debugging, etc. JRE contains class libraries and other supporting files, whereas software development tools are not included in JVM.
- JDK comes with the installer, on the other hand, JRE only contains the environment to execute source code whereas JVM bundled in both software JDK and JRE.

```

Main.java x
1 package corejava.basics;
2
3 /* Author is Siddharth Chatterjee */
4
5 public class Main {
6     public static void main (String[] args) {
7         Movie obj1 = new Movie();
8         Movie obj2 = new Movie( _title: "Lakshya", _genre: "War/Drama",
9         System.out.println(obj1.toString());
10        System.out.println(obj2.toString());
11        Movie obj3 = new Movie();
12        obj3.setTitle("Qayamat Se Qayamat Tak");
13        obj3.setGenre("Romance/Drama");
14        obj3.setStar("Juhi Chawla");
15        obj3.setYear(1988);
16        obj3.setEarnings(5.50);
17        System.out.println(obj3.toString());
18    }
19 }
20

```

An example of a code snippet using basic concepts of Java from Object creation and instantiation to using getters and setters as well as various constructors (both parameterized and default) and other methods.

```

Movie.java x
1 package corejava.basics;
2
3 // class definition
4 public class Movie {
5     // instance variables
6     String title, genre, star;
7     int year;
8     double earnings;
9
10    //method name - toString
11    //method return type of - String
12    public String toString() {
13        String output = "";
14        output += "Title: " + title + "\n";
15        output += "Genre: " + genre + "\n";
16        output += "Star: " + star + "\n";
17        output += "Year of Release: " + year + "\n";
18        output += "Total earnings (Cr): " + earnings + "\n";
19        return output;
20    }
21
22    // default constructor
23    public Movie() {
24        title = "default - Taare Zameen Par";
25        genre = "default - Drama";
26        star = "default - Aamir Khan";
27        year = 2007;
28        earnings = 85.88;
29    }
30 }

```

## Output Window

```
Main x
"C:\Program Files\Java\jdk-17.0.5\bin\java.exe"
Title: default - Taare Zameen Par
Genre: default - Drama
Star: default - Aamir Khan
Year of Release: 2007
Total earnings (Cr): 85.88

Title: Lakshya
Genre: War/Drama
Star: Hrithik Roshan
Year of Release: 2004
Total earnings (Cr): 79.54

Title: Qayamat Se Qayamat Tak
Genre: Romance/Drama
Star: Juhi Chawla
Year of Release: 1988
Total earnings (Cr): 5.5

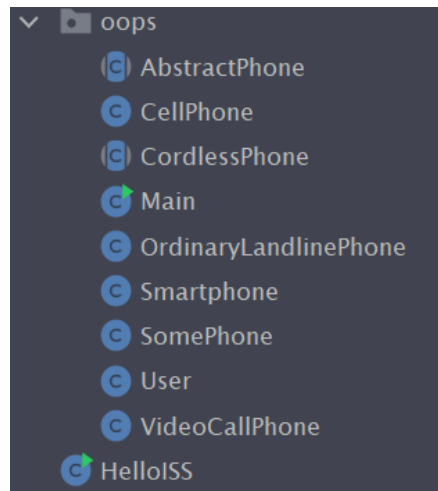
Process finished with exit code 0
```

## Loop control and decision making

```
LoopControl.java x
1 package corejava.basics;
2
3 // loop control
4 public class LoopControl {
5     public static void main(String args[]) {
6         String [] names = {"Siddharth", "Pranjal", "Priyanshi", "Khushi"};
7         for (String name : names) {
8             System.out.print(name);
9             System.out.print(",");
10        }
11        System.out.println("\n");
12        // decision making
13        System.out.println(3 > 2 ? true : false);
14    }
15 }
```

```
LoopControl x
"C:\Program Files\Java\jdk-17.0.5\bin\java.exe" -javaagent:C:\Users\Asus\AppData\Local\Temp\jvstmp123456789\jvstmp123456789.jar
Siddharth,Pranjal,Priyanshi,Khushi,

true
```



OOPS concept codes are in 9 separate files – all principles from polymorphism to encapsulation to inheritance and abstraction are demonstrated with examples – Cell Phone/Video Phone etc.

```
Main.java x
1 package corejava.oops;
2 /* Author is Siddharth Chatterjee */
3 public class Main {
4     public static void main (String[] args) {
5         AbstractPhone phone = new OrdinaryLandlinePhone( year: 1984);
6         AbstractPhone videoPhone = new VideoCallPhone( year: 2018);
7         User user = new User( name: "Siddharth");
8         // Calling 58649
9         user.callAnotherUser( number: 58649, phone);
10        // Connecting video call to 58649
11        user.callAnotherUser( number: 58649, videoPhone);
12
13        // Receive call from 20737
14        user.pickupAnotherUser( number: 20737, phone);
15        // Receive video call from 20737
16        user.pickupAnotherUser( number: 20737, videoPhone);
17    }
18 }
19 }
```

```
corejava.oops.Main x
"C:\Program Files\Java\jdk-17.0.5\bin\java.exe" -javaagent:C:\Users\Asus\
Calling 58649
Connecting video call to 58649
The phone is ringing 20737 is displayed
Incoming video call from 20737
Process finished with exit code 0
>>
```

Output window of Main.java which employs all OOPS principles

Things to note with the 'final' keyword:

- Final variable once assigned; value cannot be changed

Similarly,

- If we make any method as final, we cannot override it.

And,

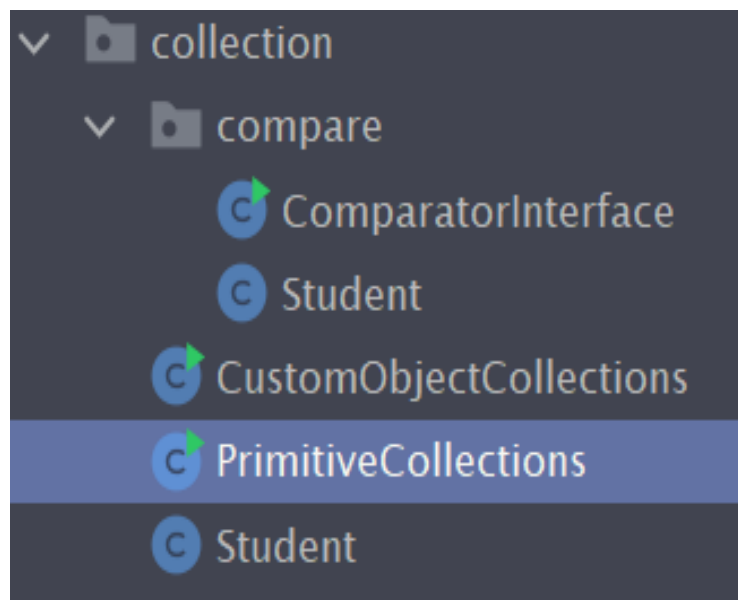
- If we make any class as final, we cannot extend it.

Also,

- Since constructor is never inherited we cannot declare a constructor final

Lastly,

- Blank final variables can only be initialized in constructors



Collection and Compare package and java files

```
ISS_Pre-Joining_Training-Assignment > Java > src > corejava > collection > PrimitiveCollections
Run: PrimitiveCollections x
"C:\Program Files\Java\jdk-17.0.5\bin\java.exe" -javaagent:C:\Use

----- ARRAY LIST OPERATIONS -----

ArrayList is: [1, 2, 3, 4, 5]
ArrayList after removing element at index 3: [1, 2, 3, 5]
Index of element '3' which is: 2
Index of element '4' which is not in the list returns : -1
Setting index '1' value to '7' the ArrayList is: [1, 7, 3, 5]
Cloned (Shallow copy) ArrayList is: [1, 7, 3, 5]
Clearing ArrayList: []
Checking if ArrayList is empty: true

----- SET LIST OPERATIONS -----

Union of the two Set: [0, 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12]
Intersection of the two Set: [0, 4, 10]
Difference of the two Set: [2, 6, 8, 12]
Set A after removing element 0 is: [2, 4, 6, 8, 10, 12]
Checking if element 9 is present in Set A: false

----- MAP LIST OPERATIONS -----

Elements in map A are: {Nine=9, Seven=7, Two=2}
Map A after removing 'two': {Nine=9, Seven=7}
Map A size is: 2
Map A element value for key 'Nine': 9
```

Operations using Array, Set and Map collections library

```
CustomObjectCollections x
"C:\Program Files\Java\jdk-17.0.5\bin
[]
CustomList is: [corejava.collection.S
ID: 0 NAME: siddharth
ID: 1 NAME: priyanshi
ID: 2 NAME: pranjal
ID: 3 NAME: khushi
ID: 4 NAME: praharsha
Index of element '3' which is: -1
```

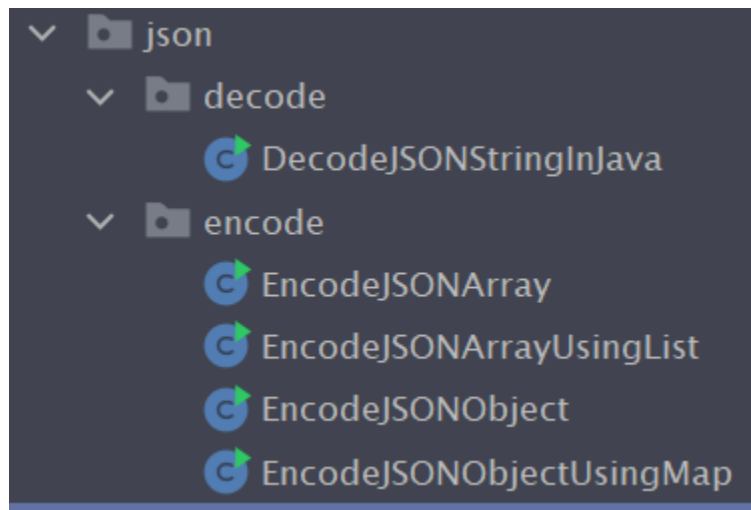
```
Multithreading.java x
1 package corejava.multithreading;
2
3 public class Multithreading {
4     /*Thread class can be used to implement multithreading.
5     However, if class is extended using Thread class, then it cannot be extended to any other class as
6     JAVA doesn't support multi-inheritance.
7     */
8     public class MultithreadingWithThread extends Thread{
9         public void run(){
10             try {
11                 // Displaying the thread that is running
12                 System.out.println("Thread using Thread class: " + Thread.currentThread().getId());
13             }
14             catch (Exception e) {
15                 // Throwing an exception
16                 System.out.println("Exception is caught");
17             }
18         }
19     }
20
21     public class MultithreadingWithRunnable implements Runnable{
22         @Override
23         public void run(){
24             try {
25                 // Displaying the thread that is running
26                 System.out.println("Thread using Runnable Interface: " + Thread.currentThread().getId());
```

## Multithreading

```
Multithreading x
"C:\Program Files\Java\jdk-17.0.5\bin\java.exe" -jav
-----
Thread using Runnable Interface: 27
Thread using Runnable Interface: 26
Thread using Thread class: 20
Thread using Thread class: 23
Thread using Thread class: 21
Thread using Runnable Interface: 31
Thread using Thread class: 16
Thread using Thread class: 17
Thread using Thread class: 22
Thread using Runnable Interface: 28
Thread using Thread class: 18
Thread using Runnable Interface: 24
Thread using Runnable Interface: 30
Thread using Runnable Interface: 29
Thread using Thread class: 19
Thread using Runnable Interface: 25

Process finished with exit code 0
```





## JSON – JavaScript Object Notation

```
EncodeJSONArray.java x
3  import org.json.simple.JSONArray;
4
5  public class EncodeJSONArray{
6      public static void main(String args[]){
7          JSONArray arr = new JSONArray();
8          arr.add("sid");
9          arr.add(new Integer( value: 27));
10         arr.add(new Double( value: 88000.50));
11         System.out.print(arr);
12     }}
```

```
EncodeJSONArray x
↑  "C:\Program Files\Java\jdk-17.0.5\bin\java.exe" -javaag
   ["sid",27,88000.5]
↓  Process finished with exit code 0
```

Encoding a JSON Array using JSONArray class and creating an object named 'arr'

Similarly the Github Repository has several other implementations of JSON Encode and Decode

For the DBMS part, I am going to use a project of my own to demonstrate some concepts using SQL queries and further examples.

### **But firstly, some common definitions:**

#### **Data:**

It is a collection of information.

#### **Database:**

It is a collection of interrelated data usually stored in the form of tables

### **Database System advantages:**

- Redundancy can be reduced
- Inconsistency can be avoided
- Data can be shared
- Security restrictions can be applied
- Integrity can be maintained
- Data can be shared

### **Applications:**

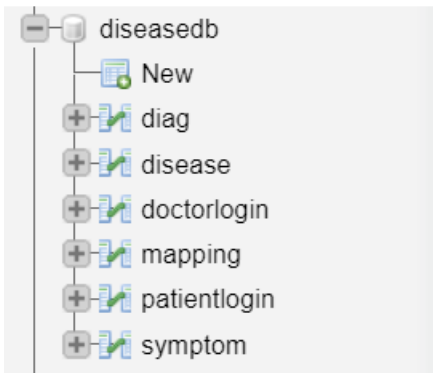
- Database Applications:
- Banking: all transactions
- Airlines: reservations, schedules
- Universities: registration, grades
- Sales: customers, products, purchases
- Online retailers: order tracking, customized recommendations

### **Various actors and stakeholders:**

- Database Administrator
- Database Designers
- Database Tool developers
- End users

The E-R model can be used to describe the data involved in a real world enterprise in terms of objects and their relationships.

It was an Online Disease Prediction system for my college and here are the complete details:



Server: 127.0.0.1 » Database: diseasedb » Table: diag

Table structure

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	x	int(3)		Yes	NULL			Change  Drop  More
<input type="checkbox"/>	2	yes	decimal(2,1)		Yes	NULL			Change  Drop  More
<input type="checkbox"/>	3	no	decimal(2,1)		Yes	NULL			Change  Drop  More
<input type="checkbox"/>	4	maybe	decimal(2,1)		Yes	NULL			Change  Drop  More

☐ Check all With selected: Browse Change Drop Primary Unique In

Server: 127.0.0.1 » Database: diseasedb » Table: disease

Table structure

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	did	int(11)		No	None			Change  Drop  More
<input type="checkbox"/>	2	dname	varchar(30)	latin1_swedish_ci	No	None			Change  Drop  More
<input type="checkbox"/>	3	specialist	varchar(50)	latin1_swedish_ci	Yes	NULL			Change  Drop  More
<input type="checkbox"/>	4	precaution	varchar(5000)	latin1_swedish_ci	No	None			Change  Drop  More

☐ Check all With selected: Browse Change Drop Primary Unique Index

#### DATA USED:

<https://www.kaggle.com/sadiq2894/heart-disease-analysis-and-predicting/data?select=heart.csv>

Server: 127.0.0.1 » Database: diseasedb » Table: symptom

Browse Structure SQL Search Insert Export Import Privileges Operations Triggers

Showing rows 0 - 9 (10 total, Query took 0.0011 seconds.)

SELECT \* FROM `symptom`

Profiling [Edit inline] [Edit] [Explain]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	sid	sname	fuzzy_set	range_value	Description
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	AGE	1-34,35-45,46-120	1	Age in Years
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	13	CA	0,1,2,3	0	number of major vessels colored by fluoroscopy : d...
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	7	CHEST PAIN	1,2,3,4	0	chest pain type : categorical, 4 values {1: ty...
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	3	CHOLESTEROL	99-177,178-217,218-600	1	serum cholesterol level: continuous (mg/dl)
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	8	EXERCISE INDUCED ANGINA	0,1	0	categorical, 2 values {0: no, 1: yes}
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	10	FASTING BLOOD SUGAR	0,1	0	categorical, 2 values {0: <= 120 mg/dl, 1: > 120 m...
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	6	GENDER	1,0	0	categorical, 2 values {0: female, 1: male}
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	5	HEART RATE	30-140,141-180,181-220	1	maximum heart rate achieved : continuous
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	12	RESTING ELECTROCARDIOGRAPHY	0,1,2	0	categorical, 3 values {0: normal, 1: ST-T wave...
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	11	THAL	3,6,7	0	categorical, 3 values {3: normal, 6: fixed defect,...

```
CREATE TABLE `doctorlogin` (
  `email` varchar(30) NOT NULL,
  `password` varchar(30) NOT NULL,
  `firstname` varchar(50) DEFAULT NULL,
  `lastname` varchar(50) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
--
-- Dumping data for table `doctorlogin`
--
```

```
INSERT INTO `doctorlogin` (`email`, `password`, `firstname`, `lastname`) VALUES
('a@b.c', '123', NULL, NULL);
```

```
-----
```

Create Table and Insert data into Table statement examples

```

-- Indexes for table `disease`
--
ALTER TABLE `disease`
  ADD PRIMARY KEY (`dname`),
  ADD UNIQUE KEY `did` (`did`);

--
-- Indexes for table `mapping`
--
ALTER TABLE `mapping`
  ADD PRIMARY KEY (`did`,`sid`);

--
-- Indexes for table `patientlogin`
--
ALTER TABLE `patientlogin`
  ADD PRIMARY KEY (`email`);

--
-- Indexes for table `symptom`
--
ALTER TABLE `symptom`
  ADD PRIMARY KEY (`sname`);
COMMIT;

```

## Alter Table Statement

- To show tables present inside the database:  
SHOW tables;
- Describe a table  
DESCRIBE doctorlogin;
- Delete/Drop a table  
DROP TABLE disease;

SET SQL\_MODE = "NO\_AUTO\_VALUE\_ON\_ZERO";

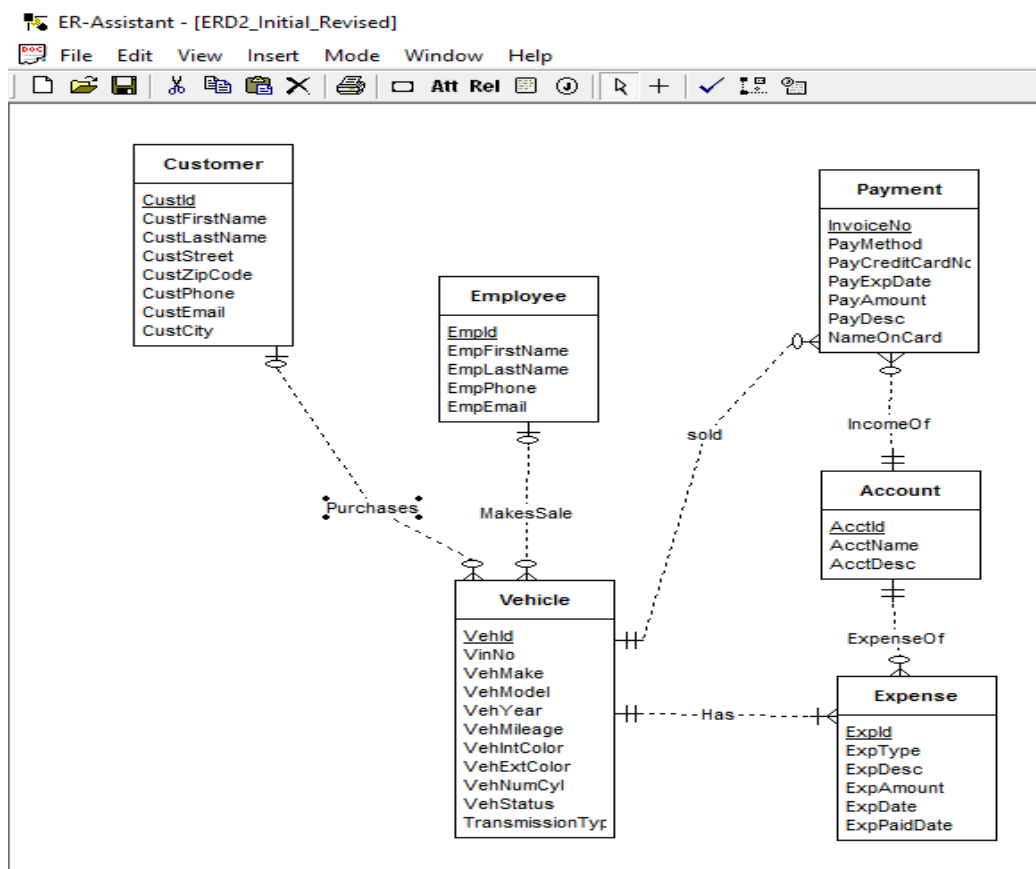
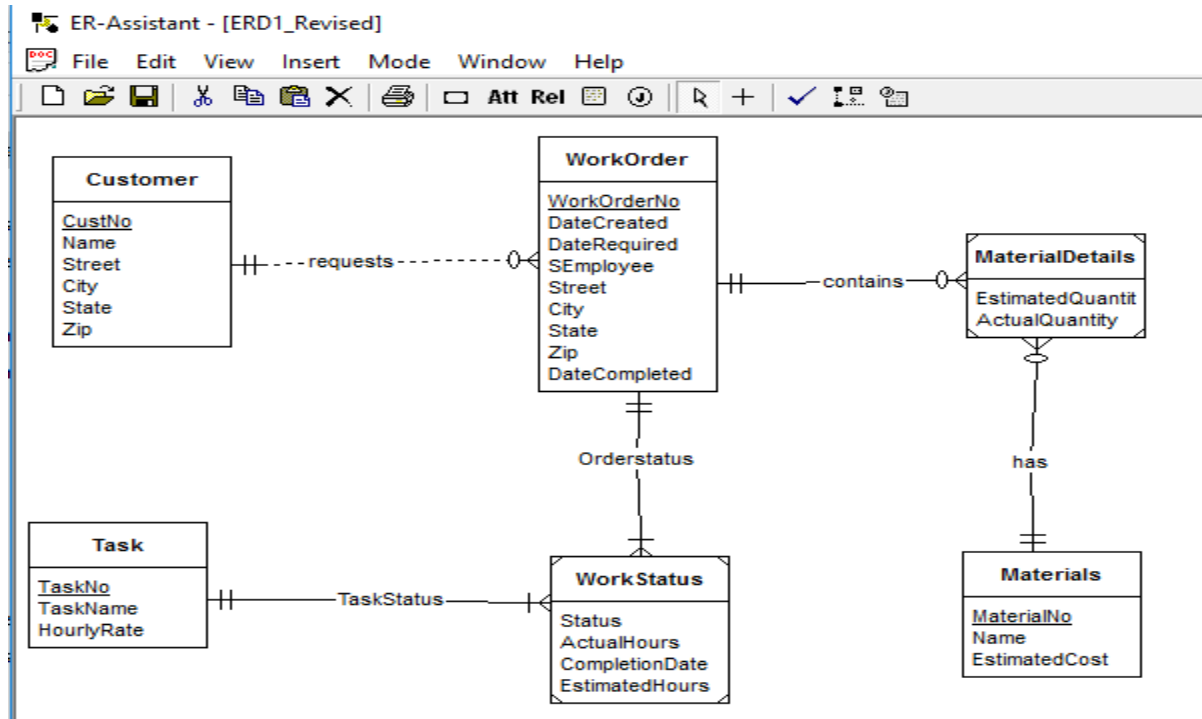
SET AUTOCOMMIT = 0;

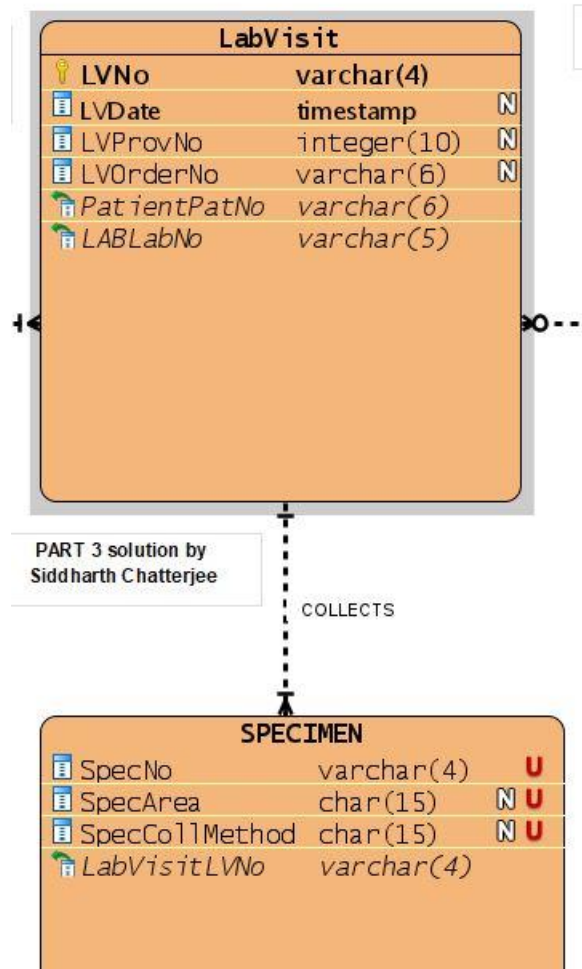
START TRANSACTION;

SET time\_zone = "+00:00";

myhmsdb constraints and setting restrictions

Some other examples of ERD from some other projects using the ERD tool are:

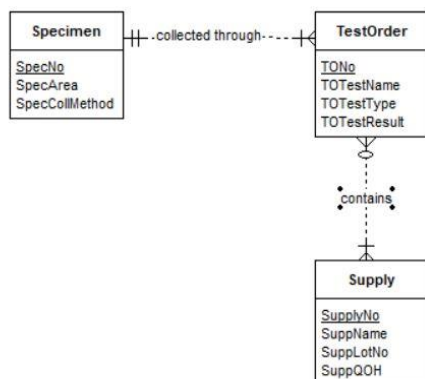




ER-Assistant - [ERD1]

File Edit View Insert Mode Window Help

Att Rel



**Relationship**

Select Relationship

collected through

contains

Name: contains

Type: ☒ Regular ☐ Identifying

Comment:

Entity 1: TestOrder

☐ One ☐ Mandatory

☒ Many ☒ Optional

Entity 2: Supply

☐ One ☐ Mandatory

☒ Many ☒ Optional

Close New Delete Attributes



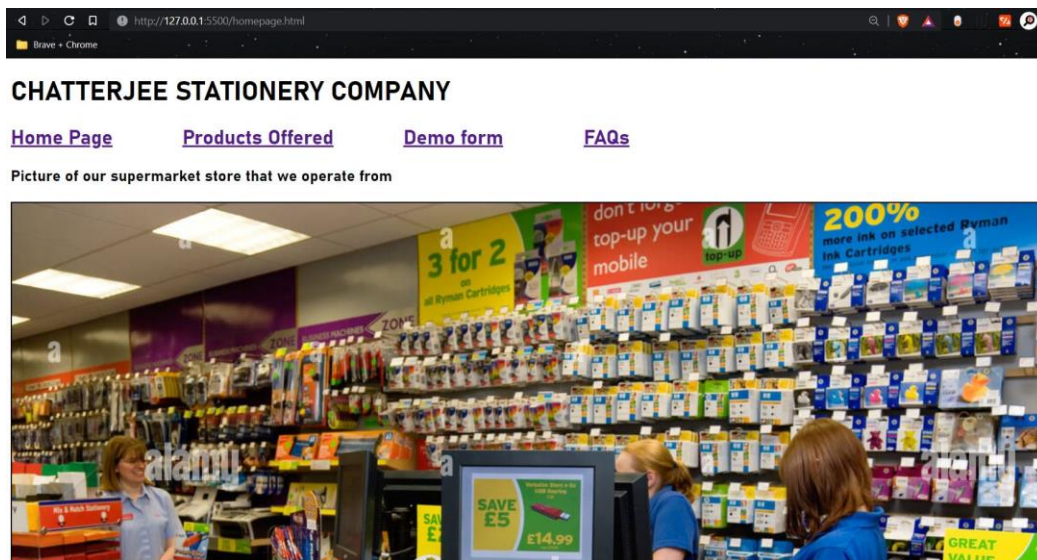
## CLIENT SIDE PROGRAMMING

For this part as well, I am going to attach screenshots of both codes and the front-end part that I had created as part of my college project. It includes almost all aspects of the client side programming.

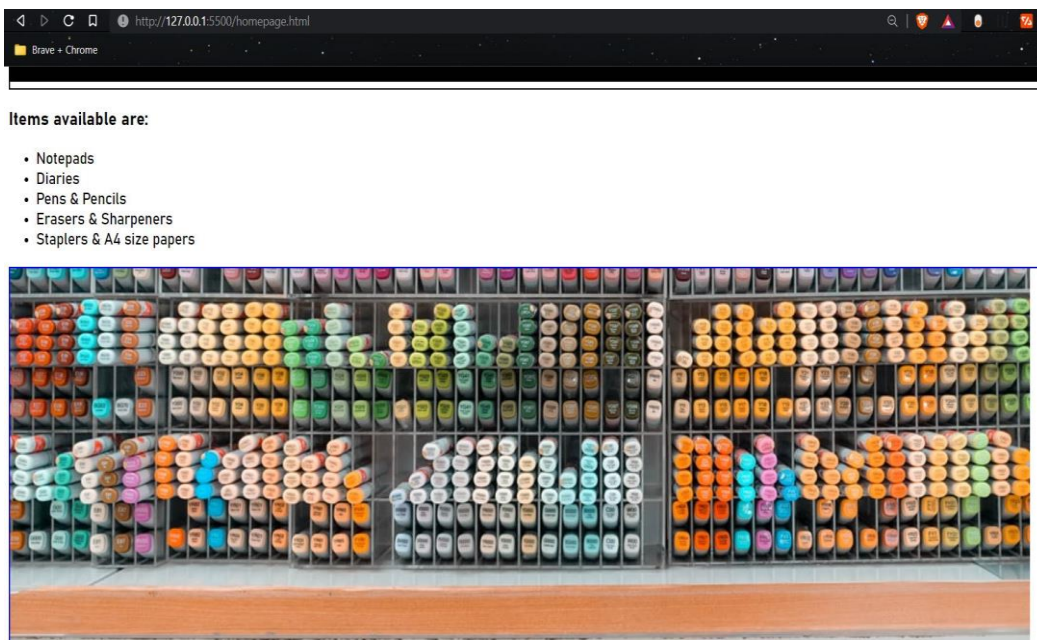
### Chatterjee Stationery - HTML and CSS

#### 1. Home page - Description and pictures about the company ( use heading , paragraph, list and image)

##### Heading and nav bar links



##### Pictures of stationery store and list of items available





## Footer of page having contact information



### **Contact Us:**

chatterjee.stationery@gmail.com

You can call us at +91-9829958649

Bansdroni Park, Tollygunge, South Kolkata - 7000 70

## homepage.html

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <title>Homepage</title>
</head>

<body>
  <h1>CHATTERJEE STATIONERY COMPANY</h1>
  <div class="nav">
    <h2>
      <a href="homepage.html">Home Page</a> &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp;
      <a href="products.html">Products Offered</a> &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp;
      <a href="demo.html">Demo form</a> &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp;
      <a href="faq.html">FAQs</a> &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp; &nbsp;
    </h2>
  </div>

  <p>
    <h3>Picture of our supermarket store that we operate from</h3>
  </p>
  <div style="border: 2px solid black;">
    
  </div>
  <p>
    <h3>Items available are:</h3>
    <ul>
      <li>Notepads</li>
      <li>Diaries</li>
      <li>Pens & Pencils</li>
      <li>Erasers & Sharpeners</li>
      <li>Staplers & A4 size papers</li>
    </ul>
  </p>
  <div style="border: 2px solid blue;">
    
  </div>
  <h2>Contact Us:</h2>
  <p>chatterjee.stationery@gmail.com</p>
  <p>You can call us at +91-9829958649</p>
  <p>Bansdrani Park, Tollygunge, South Kolkata - 7000 70</p>
</body>

</html>
```

2. Products offered- Atleast 5 products or services with description of the product, table and image


http://127.0.0.1:5500/products.html

Brave + Chrome

[Return to home](#)

### Owl Edition Notepad

Pages	Grade	Price
180	G2	₹220



Pierre Cardin Pens (pair of 2)

Ink color	Refill technology	Type	Price
Blue	A21	Reinforced Ballpoint Pen	₹65




http://127.0.0.1:5500/products.html

Brave + Chrome

### Pierre Cardin Pens (pair of 2)

Ink color	Refill technology	Type	Price
Blue	A21	Reinforced Ballpoint Pen	₹65



Classic Pink Notepad

Pages	Page-quality	Price
250	G3	₹140



## products.html

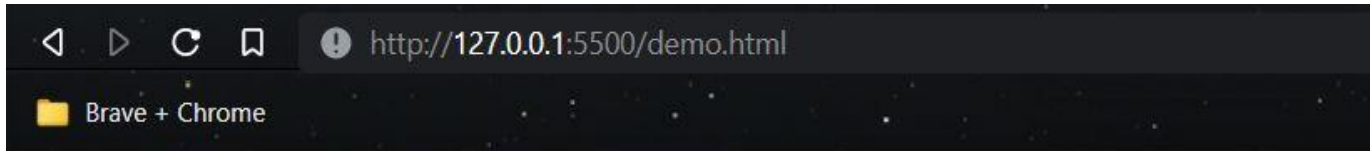
```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <title>Products</title>
</head>

<body>
  <h3><a href="homepage.html">Return to home</a></h3>
  <table>
    <tr>
      <h2>Owl Edition Notepad</h2>
      <th>Pages</th>
      <th>Grade</th>
      <th>Price</th>
    </tr>
    <tr>
      <td>180</td>
      <td>G2</td>
      <td>₹220</td>
    </tr>
  </table>
  
  <table>
    <tr>
      <h2>Pierre Cardin Pens (pair of 2)</h2>
      <th>Ink color</th>
      <th>Refill technology</th>
      <th>Type</th>
      <th>Price</th>
    </tr>
    <tr>
      <td>Blue</td>
      <td>A21</td>
      <td>Reinforced Ballpoint Pen</td>
      <td>₹65</td>
    </tr>
  </table>
  
  <table>
    <tr>
      <h2>Classic Pink Notepad</h2>
      <th>Pages</th>
      <th>Page-quality</th>
      <th>Price</th>
    </tr>
    <tr>
      <td>250</td>
      <td>G3</td>
      <td>₹140</td>
    </tr>
  </table>
  
</body>

</html>
```

### 3. Product demo form – Customer name, address, age, gender, product color, date of demo, time of demo



[Return to Home](#)

Customer name:

Siddharth Chatterjee

Address:

367/1 Block 8B near Kali ter

Age:

21

Gender:

Male

Pick color:



Date of Demo:

06-02-2022



Time of Demo:

05:29 PM



---

## Contact Us:

chatterjee.stationery@gmail.com

You can call us at +91-9829958649

Bansdrone Park, Tollygunge, South Kolkata - 7000 70



## demo.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>Demo Form</title>
</head>
<body>
  <form>
    <label for="custname">Customer name:</label><br>
    <input type="text" id="custname" name="custname"><br>
    <p></p>
    <label for="custaddress">Address:</label><br>
    <input type="text" id="custaddress" name="custaddress"><br>
    <p></p>
    <label for="custage">Age:</label><br>
    <input type="number" id="custage" name="custage"><br>
    <p></p>
    <label for="custgender">Gender:</label><br>
    <input type="text" id="custgender" name="custgender"><br>
    <p></p>
    <label for="custcolor">Pick color:</label><br>
    <input type="color" id="custcolor" name="custcolor"><br>
    <p></p>
    <label for="custdate">Date of Demo:</label><br>
    <input type="date" id="custdate" name="custdate"><br>
    <p></p>
    <label for="custtime">Time of Demo:</label><br>
    <input type="time" id="custtime" name="custtime"><br>
    <p>-----</p>
    -----</p>
    <h2>Contact Us:</h2>
    <p>chatterjee.stationery@gmail.com</p>
    <p>You can call us at +91-9829958649</p>
    <p>Bansdroni Park, Tollygunge, South Kolkata - 7000 70</p>
  </form>
</body>
</html>
```

## 4. FAQ on products –use internal links



### Frequently Asked Questions

This is the FAQ forum, below mentioned queries have been repeatedly asked quite many times. Please read the answer carefully before putting up a similar question

Q.1 Is there a cash return or product exchange on purchase of products?

A.1 No, there is no cash return on products bought. However, exchange of products for similar category but only change in size is accepted.

---

Q.2 What's the associated warranty on these products?

A.2 Most of our products (around 80%) have warranties ranging from 6 months to 2 years.

---

Q.3 Is there online shipping and free delivery available?

A.3 As of Januray 2022, all our products are listed on Amazon and Flipkart, so free delivery is available on purchase greater than ₹500

---

### Contact Us:

chatterjee.stationery@gmail.com

You can call us at +91-9829958649

[faq.html](#)

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="utf-8">
  <title>FAQ</title>
</head>

<body>
  <h1>Frequently Asked Questions</h1>
  <h2>This is the FAQ forum, below mentioned queries have
been repeatedly asked quite many times. Please read the answer
carefully before putting up a similar question</h2>
  <h3>Q.1 Is there a cash return or product exchange on
purchase of products?</h3>
  <h3>A.1 No, there is no cash return on products bought.
However, exchange of products for similar category but only
change in size is accepted.</h3>
  <p>-----
  -----</p>
  <h3>Q.2 What's the associated warranty on these products?
</h3>
  <h3>A.2 Most of our products (around 80%) have warranties
ranging from 6 months to 2 years.</h3>
  <p>-----
  -----</p>
  <h3>Q.3 Is there online shipping and free delivery
available?</h3>
  <h3>A.3 As of Januray 2022, all our products are listed on
Amazon and Flipkart, so free delivery is available on purchase
greater than ₹500</h3>
  <p>-----
  -----</p>
  <h2>Contact Us:</h2>
  <p>chatterjee.stationery@gmail.com</p>
  <p>You can call us at +91-9829958649</p>
  <p>Bansdroni Park, Tollygunge, South Kolkata - 7000 70</p>
</body>

</html>
```

## 5. Create hyperlink to connect the 4 pages

[illegible]

Above image is from vscode editor which shows how I have used hyperlinks to connect 4 pages, and for each subpage there is an option to return to homepage as well.



This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
▼<catalog>
  ▼<cd>
    <title>Still got the blues</title>
    <artist>Gary Moore</artist>
    <country>UK</country>
    <company>Virgin records</company>
    <price>10.20</price>
    <year>1990</year>
  </cd>
  ►<cd>
    ...
  </cd>
  ►<cd>
    ...
  </cd>
  ►<cd>
    ...
  </cd>
  ►<cd>
    ...
  </cd>
  ►<cd>
    ...
  </cd>
  ►<cd>
    ...
  </cd>
  ►<cd>
    ...
  </cd>
  ▼<cd>
    <title>Bridge of Spies</title>
    <artist>T`Pau</artist>
    <country>UK</country>
    <company>Siren</company>
    <price>7.90</price>
    <year>1987</year>
  </cd>
</catalog>
```

## My CD Collection

Title	Artist
Still got the blues	Gary Moore
Eros	Eros Ramazzotti
For the good times	Kenny Rogers
Big Willie style	Will Smith
Tupelo Honey	Van Morrison
Soulsville	Jorn Hoel
The very best of	Cat Stevens
Stop	Sam Brown
Bridge of Spies	T`Pau

## JavaScript form validation code:

```
function validateForm(form) {
    var name = document.val.fname.value;
    var ph=document.val.phoneno.value;
    var uname = document.val.uname.value;
    var pass = document.val.psw.value;
    var con_pass=document.val.psw1.value;
    var check=  /^(?=.*\d)(?=.*[a-z])(?=.*[A-Z]).{6,20}$/;

    if (name==null || name=="") {
        document.getElementById("error").innerHTML="Please enter name";
    }

    if ( ( form.gender[0].checked == false ) && ( form.gender[1].checked == false ) )
    {
        document.getElementById("error").innerHTML="Please choose gender";
    }

    if(ph.length<10 || ph.length>10){
        document.getElementById("error").innerHTML="Please enter valid phoneno";
    }

    if (uname==null || uname=="") {
        document.getElementById("error").innerHTML="Please enter username";
    }

    if (pass==con_pass) {
        document.getElementById("gg").innerHTML="Password matches with confirm
password";
    }
    else{
        document.getElementById("error").innerHTML="Password must be same!";
    }

    if (pass.match(check))
    {
        document.getElementById("ok").innerHTML="Password satisfies all conditions";
        return false;
    }
    else{
        document.getElementById("error").innerHTML="Please choose all conditions for
password";
    }
}
```

# Javascript Validate form

Name \* :

Choose Gender \* :

☒ Male ☐ Female

Contact no \* :

username \* :

Password \* :

**Password length minimum 6 and maximum 20 characters long**

**There should be at least one capital letter , special character and number.**

Confirm Password \* :

Password satisfies all conditions

Password matches with confirm password