***A Mini Project Report on***

**AEROSPACE MANAGEMENT SYSTEM**

**T. E.  Computer Engineering-A**

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**CERTIFICATE**

This to certify that the Mini Project report on '**Aerospace Management System**' has been carried out by **Arnold D’souza, Misaal D’souza & Crystal Fargose**(TE/CMPN-A/(23-25-27), who are bonafide students of St. Francis Institute of Technology, Mumbai in partial fulfilment of the requirement of T. E. degree in Computer Engineering at St. Francis Institute of Technology, Mumbai, India. It is also certified that this work has not been presented anywhere else for award of any other degree or diploma prior to this.

**Project  Incharge:**

**(Ms. Pradnya Rane)**

**Internal Examiner       External Examiner**

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**INTRODUCTION**

To develop a database system which will store information and the task carried out by the astronauts. There are different systems in space which receive information and are a connected entity. For e.g. which astronaut is working at the space station. It will also include information on communications, space missions ,navigation through radio signals ,planetary exploration and finding habitable planet. It consists of total seven entitites. These systems are connected to each other with a relationship, like one space station during the dock craft viz. the relationship and the spacecraft viz. the entity allows docking process which is the relationship.

**SYSTEM REQUIREMENTS**

1. Software Requirements Specification:

Every software is expected to live up to a certain standard, in order to maintain functionality and usability. Our web-app is very user friendly with minimal input elements, a good background and colour scheme that makes the action buttons easily understandable even to a new user.

2. User Interface Requirements:

The user interface should be friendly and easy to grasp. If a UI is confusing the user tends to avoid using it. It should also have an attractive look to gain the preference of the user. Another important factor is flexibility or customization.

3. Database Requirements

The database should be designed in an organised manner so that the data is segregated to enhance understanding and usability. Similar elements should be grouped together to facilitate the user’s ability to understand and use the data stored within the database effectively and efficiently.

**SYSTEM ENVIRONMENT**

1. Hardware

The hardware environment consists of the following :

CPU : Intel Pentium IV 600MHz

Mother Board : Intel 810

Hard disk space : 20GB or more

Display : 15” Monitor

Memory : 128 MB RAM

Other Devices : Color Monitor, Keyboard, mouse.

2. Software

The software used for creating this project includes:

Text editor : Atom

Front end : HTML5, CSS, JavaScript

Back end : php, MySQL

Operating System : Windows 10

Web server : wix.com/000webhost.com, XAMPP server

**SYSTEM DESIGN**

1. Input Design

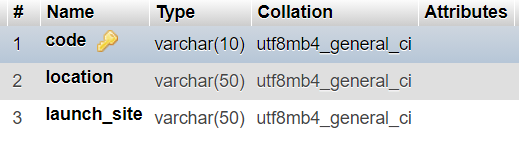
The input field is shown where the user can enter the values. These interactions should take minimum effort, be quick and achieve the desired result with as little hindrance as possible. Any unnecessary time-consuming activities should be avoided such as long animations, unnecessary scrolling, displaying each input field on separate pages, etc.

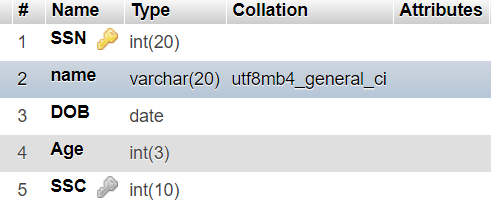
2. Output Design

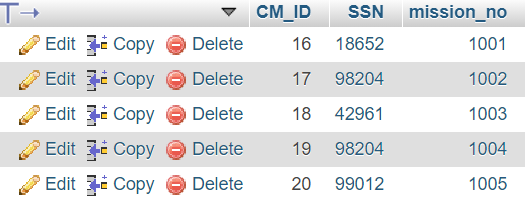
The output is a table which shows the value inserted. The user after updating or deleting or searching for a particular field is also done and displayed.

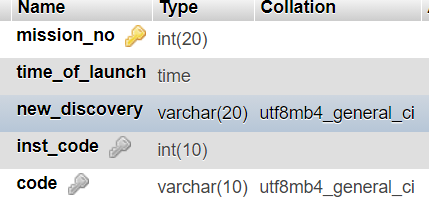
3. Database Design

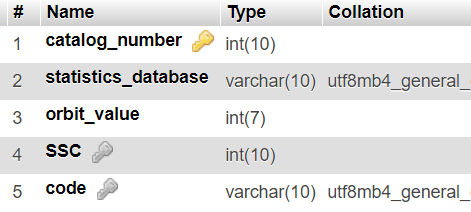
Database stores data in the form of tables. Database design involves giving a structure to these tables so that they’re efficient at storing more data in less space. Performing operations on these data entries should also be easy and not tedious. The following are the tables in our database:











MAIN FRONT-END CODE:

<?php

$link = mysqli\_connect("localhost","root","");

mysqli\_select\_db($link,"useraccounts");

?>

<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">

<html>

<head>

<title>Agency</title>

<link rel="stylesheet" type="text/css" href="css/bootstrap.min.css">

<link rel="stylesheet" href="agencystyle.css">

<title>Untitled Document</title>

<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">

</head>

<body>

<div>

<form name="form1" action="" method="post">

<div class="container">

<div class="row">

<div class="col-sm-4">

<h2>Agency Registration</h2>

<hr class="mb-3">

<label for="code"><b>Code</b></label>

<input class="form-control" type="number" name="t1">

<label for="location"><b>Location</b></label>

<input class="form-control" type="text" name="t2">

<label for="launch\_site"><b>Launch Site</b></label>

<input class="form-control" type="text" name="t3">

<hr class="mb-4">

<input class="btn btn-outline-success" type="submit" name="submit1" value="insert">

<input class="btn btn-outline-danger" type="submit" name="submit2" value="delete" >

<input class="btn btn-outline-warning" type="submit" name="submit3" value="update"><p> </p>

<input class="btn btn-outline-info" type="submit" name="submit4" value="display">

<input class="btn btn-outline-primary" type="submit" name="submit5" value="search">

</div>

</div>

</div>

</form>

</div>

</body>

<?php

if(isset($\_POST["submit1"]))

{

mysqli\_query($link,"INSERT INTO agency VALUES('$\_POST[t1]','$\_POST[t2]','$\_POST[t3]')");

}

if(isset($\_POST["submit2"]))

{

mysqli\_query($link,"DELETE FROM agency where code='$\_POST[t1]'");

}

if(isset($\_POST["submit3"]))

{

mysqli\_query($link,"update agency set code='$\_POST[t2]' where code='$\_POST[t1]'");

}

if(isset($\_POST["submit4"]))

{

$res = mysqli\_query($link,"select \* from agency");

echo "<div>";

echo "<table class='table' border='5px' align='center'>";

echo "<thead class='thead-dark'>";

echo "<tr>";

echo "<th scope='col'>"; echo "Code" ; echo "</th>";

echo "<th scope='col'>"; echo "Location"; echo "</th>";

echo "<th scope='col'>"; echo "Launch Site"; echo "</th>";

echo "</tr>";

echo "</thead>";

echo "<tbody>";

while($row=mysqli\_fetch\_array($res))

{

echo "<tr>";

echo "<td>"; echo $row["code"] ; echo "</td>";

echo "<td>"; echo $row["location"]; echo "</td>";

echo "<td>"; echo $row["launch\_site"]; echo "</td>";

echo "</tr>";

}

echo "</tbody>";

echo "</table>";

echo "</div>";

}

if(isset($\_POST["submit5"]))

{

$res = mysqli\_query($link,"select \* from agency where code='$\_POST[t1]'");

echo "<table class='table' border='5px' align='center'>";

echo "<thead class='thead-dark'>";

echo "<tr>";

echo "<th scope='col'>"; echo "Code" ; echo "</th>";

echo "<th scope='col'>"; echo "Location"; echo "</th>";

echo "<th scope='col'>"; echo "Launch Site"; echo "</th>";

echo "</tr>";

echo "</thead>";

echo "<tbody>";

while($row=mysqli\_fetch\_array($res))

{

echo "<tr>";

echo "<td>"; echo $row["code"] ; echo "</td>";

echo "<td>"; echo $row["location"]; echo "</td>";

echo "<td>"; echo $row["launch\_site"]; echo "</td>";

echo "</tr>";

}

echo "</tbody>";

echo "</table>";

}

?>

</html>

DATABASE CODE ( \_\_\_EntityName\_\_\_)

\_\_\_\_Agency\_\_\_\_\_

CREATE TABLE Agency(

agency\_code number(10) primary key,

location varchar2(50),

launch\_site varchar2(50)

);

\_\_\_Space\_Station\_\_\_

CREATE TABLE Space\_Station(

SSC number(10) primary key,

no\_of\_astronauts number(10),

experiment\_labs number(5)

);

\_\_\_Satellite\_\_\_\_

CREATE TABLE Satellite(

catalog\_number number(10) primary key,

statistics varchar2(10),

orbit\_value number(7),

SSC,

agency\_code,

foreign key (SSC) references space\_station(SSC),

foreign key(agency\_code) references Agency(agency\_code)

);

\_\_\_Astronaut\_\_\_

CREATE TABLE Astronaut(

SSN number(10) primary key,

name varchar2(20),

DOB Date,

Age number(2),

SSC,

foreign key(SSC) references space\_station(SSC)

);

\_\_\_Spacecraft\_\_\_

CREATE TABLE Spacecraft(

instrument\_code number(5) primary key,

capacity number(5),

navigation\_system varchar2(25),

SSC,

foreign key(SSC) references space\_station(SSC)

);

\_\_\_Missions\_\_\_\_\_

CREATE TABLE Missions(

mission\_number number(5) primary key,

date\_time\_of\_launch date,

new\_discoveries varchar2(50),

instrument\_code,

agency\_code,

foreign key(instrument\_code) references spacecraft(instrument\_code),

foreign key(agency\_code) references agency(agency\_code)

);

\_\_\_CommissioningMissions\_\_\_

CREATE TABLE CommissioningMissions(

CM\_ID number(1),

SSN,

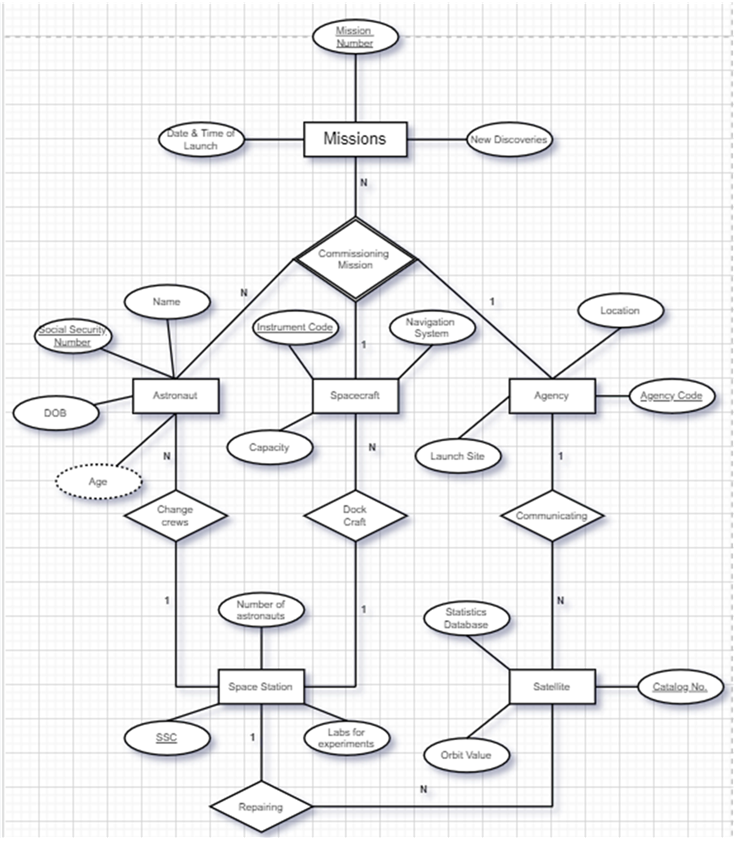
mission\_number,

foreign key(SSN) references astronaut(SSN),

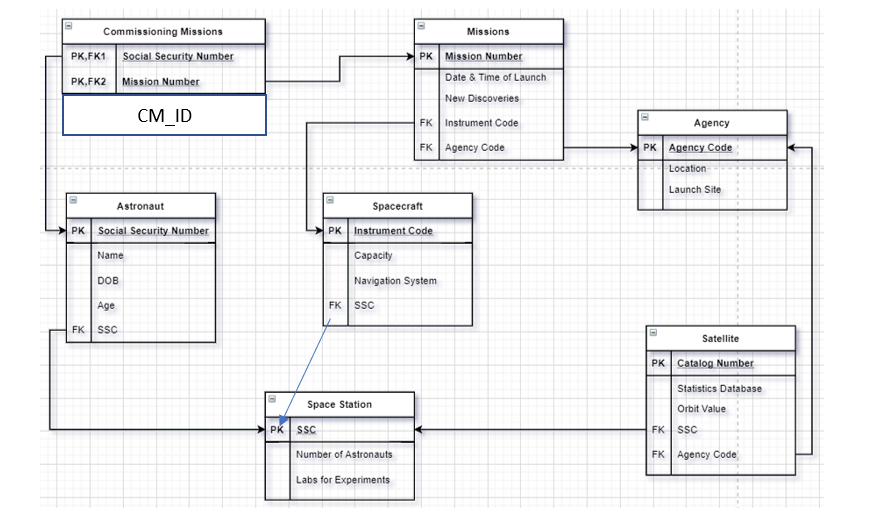
foreign key(mission\_number) references missions(mission\_number)

);

ER Model :



Relational Model:



**CONCLUSION :**

We have successfully accomplished what we set out to do, i. e. create a computer web application that manages aerospace information which gets stored into database and it gives proper information to the user in a tabular form. In doing so we have gained confidence in our ability to create more applications and will use this project experience while making web-apps in the future, with even better more ironed out functions.

**SCREENSHOTS**

