ADITYA COLLEGE OF ENGINEERING

(Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi) Surampalem, A.D.B ROAD, East Godavari District

Department of Computer Science & Engineering



CERTIFICATE

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A PROJECT REPORT ON

DISASTER MANAGEMENT

Submitted in partial fulfillment of the requirements for the award of the degree of

BACHELOR OF TECHNOLOGY In COMPUTER SCIENCE & ENGINEERING

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2016-2020

DECLARATION

We hereby declare that this project entitled "**DISASTER MANAGEMENT**" has been undertaken by us and this work has been submitted to ADITYA COLLEGE OF ENGINEERING Affiliated to JNTU Kakinada, in partial fulfillment of the requirements for the award of the Degree of BACHELOR OF TECHNOLOGY in COMPUTER SCIENCE & ENGINEERING

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ABSTRACT

A disaster is a serious disruption in the functioning of a community or a society, which exceed the ability of the affected community or the society to cope using its own resources; for instance, there is a widespread human, economic, environmental and material impact due to turbulent cyclones. **Disaster Management** refers to conservation of lives and property during a natural and man-made disaster. Disaster management plans are multi-layered and are planned to address issues such as floods, hurricanes, fires, mass failure of utilities, rapid spread of disease and droughts. In this disaster

With the help of this project we can prevent the damage occurred to some extent. This project management we have three phases with respect to the stages of disaster is made with the Moto to help people. We use **Django** in this project. **Django** is a high-level Python web framework that encourages rapid development and clean pragmatic design. A Web framework is a set of components that provide a standard way to develop websites fast and easily. Django's primary goal is to ease the creation of complex database-driven websites. In Django, we have built-in database to use. We maintain the data that is required during disaster like safe places in that area, transport facilities to safe place and medical requirements. Here safe place means the place which is not affected due to disaster and it should contain minimum facilities.

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1. INTRODUCTION

The term "Disaster Management" encompasses the complete realm of disaster-related activities. Traditionally people tend to think of disaster management only in terms of the post-disaster actions taken by relief and reconstruction officials; yet disaster management covers a much broader scope, and many modern disaster managers may find themselves far more involved in pre-disaster activities than in post-disaster response.

Disaster management essentially deals with management of resources and information towards a disastrous event and is measured by how efficiently, effectively and seamlessly one coordinates these resources. The ability to effectively deal with disasters has become a challenge to modern technology. We designed the website which helps to the people to survive. In this website we will have information about safe places and other information regarding it. User can view these details by entering his location.

2. REQUIREMENT ANALYSIS

When the organization or a project development environment takes up a project, the first and foremost analysis performed is the requirement analysis. A "problem definition" is formulated. This is a very eminent phase in the project development. Utmost care has to be taken in this stage of project development if the analysis goes wrong and the problem definition quotes a wrong requirement specification the project developed will not be of use.

Requirement analysis is a software engineering task that bridges the gap between system software allocation and software design. It provides the system engineer to specify software functions and performance indicate software's interface with other system elements and establish constraints that software must need. The basic is to obtain a clear picture of the needs and requirements of the end user and also the organization.

The requirements phase basically consists of three activities:

- 1. Requirement Analysis
- 2. Requirement specification
- 3. Requirement validation

REQUIREMENT ANALYSIS:

The basic aim of this stage is to obtain a clear picture of the needs and requirements of the end-user and also the organization. Analysis involves interaction between analyst and the data set.

The essential final consistent specifications are divided into five parts

- a. Problem recognition
- b. Evaluating And Synthesis
- c. Modeling
- d. Specification
- e. Review

2.1Hardware & software requirements:

2.1.1 Hardware requirements

RAM-32GB OR 16GB

PROCESSOR- INTEL

CORE i5 **SPEED-** 2.8GHz

STORAGE- 300GB

2.1.2 Software requirements:

OPERATING SYSTEM: WINDOWS 10 PRO

TECHNOLOGY: Django

LANGUAGE: PYTHON, HTML, CSS

PYTHON LIBRARIES: Render, http response

2.2 Software Requirement Specifications:

2.2.1 Vision:

For government or an organization which works to reduce or prevent damage caused during floods, the disaster management is a website which can help them to do so.

For user who does not know much about the nearby safe places, hospitals and transport details, the disaster management is a website which can help them to find those required places.

2.2.2 Scope:

This project is aimed at developing a website that is used for government to reduce the damage caused by floods. The main use of this application is to help the users to save their life during floods.

In this system, government officials will add safe places information, rescue team information, transport system details. As it was a online application

2.2.3 Glossary:

Admin	Register government officials
Government official	Add safe places, give alerts
User	Enter location, view safe places

2.2.4 System Functions:

S.NO	Descriptio	
	n	
	ADMINISTRATOR	
1	Login into the system	
2	Add government officials	
3	Delete government officials	
4	Logout	
	GOVERNMENT OFFICIALS	
1	Login	
2	Add safe places information	
3	Give alerts	
4	Logout	
	USER	
1	Visit webpage	
2	Enter location	
3	View safe places information	

2.2.5 Detailed Software Requirements: 2.2.5.1 Actors:

Actor Name	Government Official
Description	Add safe place details and give alerts.
Main Activities	They can add safe place details like it's name, distance, contact number to the system and can give alerts during floods
Frequency of Use	High
Work Environment Location	Browser
Number of Users	Any number

Actor Name	Administrator
Description	Handles all admin related tasks throughout the application.
	Authenticate government officials & Uses the system
Main Activities	to setup initial data, define access control etc.
Frequency of Use	Medium
Work Environment location	Browser
Number of Users	Any number

Actor Name	User
Description	Enter location and view safe place details
Main Activities	They will enter their current location and then they will view the details of safe places mentioned in the website during floods.
Frequency of Use	High
Work Environment Location	Browser
Number of Users	Any number

2.2.6 List of Use Cases:

- Get Registered
- Login
- Add Government Officials
- Delete Government Officials
- Add Safe Place Details
- Give Alerts
- Enter Location
- View Safe Place Details

2.2.7 Brief Use Case Description:

Use Case name	Login
Actors	Admin, Government Official
Goal	Login in to the system
Description	Admin & Government Official login into the system
Precondition	None
Post condition	Admin & Government Official can access the system

Use Case name	Add Safe Place details
Actors	Government Official
Goal	Add new safe place details
Description	Government Official add safe place details into the
	system
Precondition	None
Post condition	None

Use Case name	Give Alerts
Actors	Government Official
Goal	Give alerts in the system
Description	Government Official give alert in the system about
	flood
Precondition	None
Post condition	None

Use Case name	View Safe Place details
Actors	User
Goal	View safe place details
Description	User can view safe place details in the system
Precondition	None
Post condition	None

2.2.8 Functional Capabilities:

- Government Officials identities are anonymous.
- Password should be encrypted.

2.2.9 Security Requirements:

2.2.9.1 Administrator Management and Authentication:

- **2.2.9.1.1** The system must be accessed by an authentic person, i.e. Administrator.
- **2.2.9.1.2** The adding / deleting of government officials are done by Administrator.

2.2.10 Non-Functional Requirements:

The application should support interruptions for regular network device tasks i.e. viewing safe place details. (Supportability)

The webpage should load within seconds. (Performance)

Flexible architecture will be highly desirable for the further extension. (Supportability)

The system should be available 24 x 7. (Reliability/ availability)

• Reliability:

The system has been developed by considering every single quality factor.

• Security:

The system has been authorized so that valid user can add / delete details of safe places.

• Availability:

The system has been developed in such a way that loading of safe place details must be finished within span of time.

3. SYSTEM ANALYSIS

3.1 Existing System

- The current system is maintaining manually.
- Manual maintenance of records involves burden and it is quite tedious task. In general existing there is no security.
- If any record missed it is very difficult to retrieve the data.

3.1.1 Limitations of Existing System

- The study was conducted during floods so some sort of disturbances were inevitable.
- Since there is no well-established Disaster Management department in the valley so we couldn't get the reliable and organized data.
- Primary information was collected directly from flood victims so what they conveyed may be biased.
- There are no alerts in the system about floods.
- It is not available to all people who need it.
- It requires paper work, large amount of laborious work

3.2 Proposed System

- The proposed system is computerized to provide greater easiness and flexible.
- The system is constructed in an object oriented trend thinking in an abstract way considering all the involvements as object.
- With the help of our project, information about safe places and other important contacts will be known to all users.

3.2.1 Advantages of Proposed System

- It is available 24 x 7.
- It can give alerts / warnings to the users before occurrence of floods.
- The primary information is collected by government officials so that no fake information is present in system.

- As it is a web based project it can be used by all in their time of need.
- Adding of new safe place details is easier than existing system.

3.2.2 Project Module:

1. Admin Module:

The admin is responsible for maintenance of system. He can add or delete the government officials to the system.

2. Government Officials Module:

Government official must be an authorized user. He can add safe place details, transport details and rescue team details. He can also give alerts before occurrence of floods.

3. User Module:

User does not have any authorization. If user has authorization, only authorized users will know about the safe places and the unauthorized users do not know about it due to this their life may be in danger. So there is no authorization for user. User will enter his location and then he can view safe place details.

4. SOFTWARE ENVIRONMENT

4.1 Selected Software:

4.1.1 Introduction to Django:

Django is a Python-based web framework which allows you to quickly create web application without all of the installation or dependency problems that you normally will find with other frameworks. When you're building a website, you always need a similar set of components: a way to handle user authentication (signing up, signing in, signing out), a management panel for your website, forms, a way to upload files, etc. Django gives you ready-made components to use.

Features:

- Don't repeat yourself scenario
- Unbelievably fast
- The complete Package
- Tons of packages
- Highly secure
- Widely Scalable
- Incredibly Versatile
- Multi-lingual support

Installation of Django:

Install python3 if not installed in your system (according to configuration of your system and OS). Try to download the latest version of python is python3.6.4 this time.

Command to install Django

> Pip install Django

Command to start project

> django -admin startproject mysite

```
mysite/
manage.py
mysite/
__init__.py
settings.py
urls.py
asgi.py
wsgi.py
```

These files are:

The outer **mysite**/ root directory is a container for your project. Its name doesn't matter to Django; you can rename it to anything you like.

manage.py: A command-line utility lets you interact with this Django project in various ways. You can read all the details about **manage.py** in django-admin and manage.py.

mysite/_init_.py: An empty file that tells Python that this directory should be considered a Python package. If you're a Python beginner, read more about packages in the official Python docs.

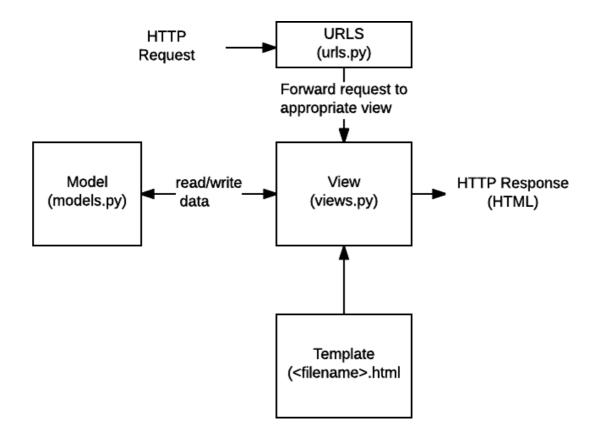
mysite/ settings.py: Settings/configuration for this Django project. Django settings will tell you all about how settings work.

mysite/ urls.py: The URL declarations for this Django project; a "table of contents" of your Django-powered site. You can read more about URLs in URL dispatcher.

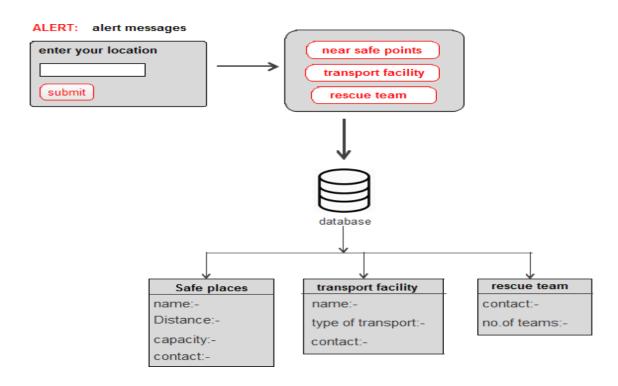
mysite/ asgi.py: An entry-point for ASGI-compatible web servers to serve your project. See How to deploy with ASGI for more details.

mysite/ wsgi.py: An entry-point for WSGI-compatible web servers to serve your project. See how to deploy with WSGI for more details.

Working:



4.2 System Architecture:



5. SYSTEM DESIGN

In this design phase we design the system making use of study phase and the data flow diagrams. We make use the general access methods for designing. We consider the top down approach. In the design phase we determine the entities and their attributes and the relationships between the entities. We do both logical and the physical design of the system.

The most creative and challenging phase of the life cycle is system design. The term design describes a final system and the process by which it is developed. It refers to technical specifications that will be applied in implementations of the candidate system. The design may be defined as "the process or a system with sufficient details to permit its physical realization.

The designer goal is how the output is to be produced and in what format. Samples of output and input are also presented. Second input files and database files have to be designed to meet the requirements of the proposed output. The processing phases are handled through the program construction and testing. Finally, details related to justification of the system and an estimate of the impact of the candidate system on the user and the organization are documented and evaluated by management as a step towards implementation.

The importance of software design can be stated in single word "Quality". Design provides us with representations of software that can be assessed for quality. Design is the only way where we can accurately translate a costumer's requirement into complete software product or system. Without design we risk building a unstable system that might fail if small changes are made. So it is an essential phase in the development of software product.

System design develops the architectural detail required to build a system or product. The system design process encompasses the following activities.

- Partition the analysis model into subsystems.
- Identify the concurrency that is dictated by the problem.
- Allocate subsystems to processors and tasks.
- Develop a design for the user interface.
- Choose the basic strategy for implementing data management.
- Identify global resources and control mechanisms required to access them.

5.1 UML diagrams

5.1.1 Use case diagram:

The unified modeling language allows the software engineers to express an analysis model using the model notation that is governed by asset of syntactic semantic and pragmatic rules.

A UML system is represented using five different views that describe the system from distinctly perspective. Each view is defined by diagrams, which is as follows.

User model view:

This View Represents the System from the User's Perspective. The Analysis Is Representation Describes A Usage Scenario From The End-User Perspective.

Structural model view:

In this model the data and functionality are arrived from inside the system. This model view models the static structures.

Behavioral view:

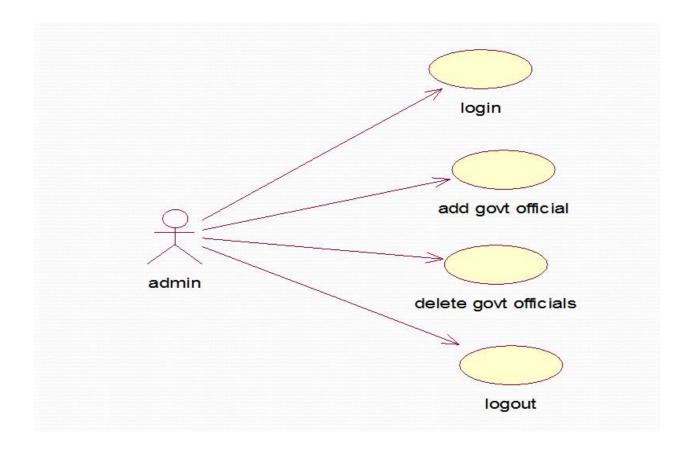
It represents the dynamic of behavioral as parts of the system, depicting the interactions of collections between various structural elements described in the user model and structural model view.

Implementation model view:

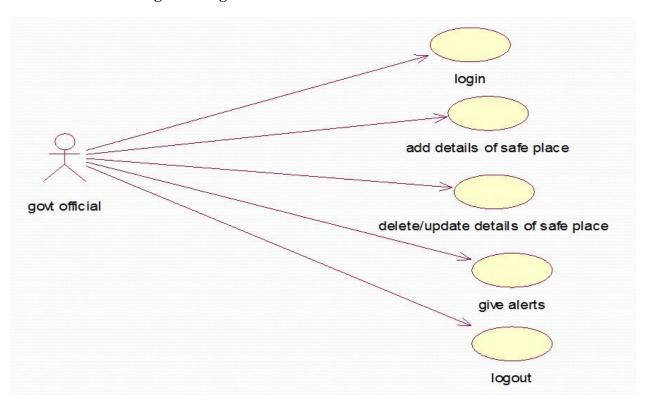
In this the structural and behavioral as parts of the system are represented as they are to be built.

Use case diagrams are created to visualize the relationships between actors and use cases. A use case is a pattern of behavior the system exhibits. Each use case is a sequence of related transactions performed by an actor and the system. Diagrammatically actor and use case are represented by stick figure and oval respectively.

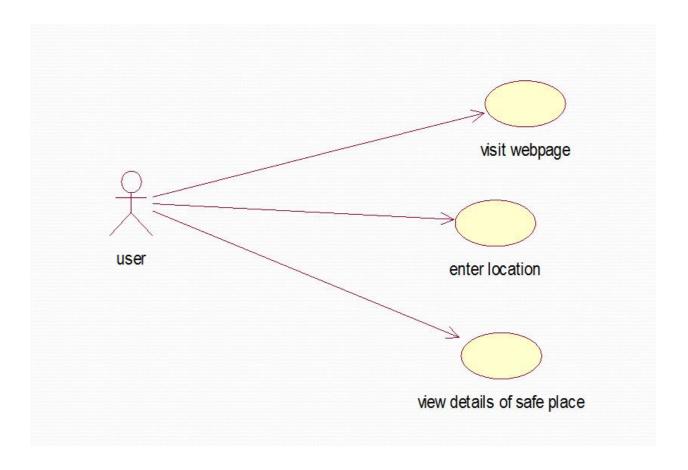
5.1.2 Use case diagram for admin:



5.1.3 Use case diagram for government official:



5.1.4 Use Case diagram for user:



5.2 Class diagram:

A class diagram show asset of class interfaces and collaborations and their relationships these diagrams are most common diagram found in modeling object oriented system class diagram address the static design view of system.

Relationships there are four kinds of relationships in UML they are

- 1. Dependency
- 2. Association
- 3. Generalization
- 4. Realization

1. Dependency:

It is a semantic relationship between two things in which a change one thing may affect the semantics of the other things graphically it is a represented line possibility directed and occasionally including a label.

2. Association:

Association is a structural relationship that describes a set of links being a collection among objects graphically association is represented as solid line.

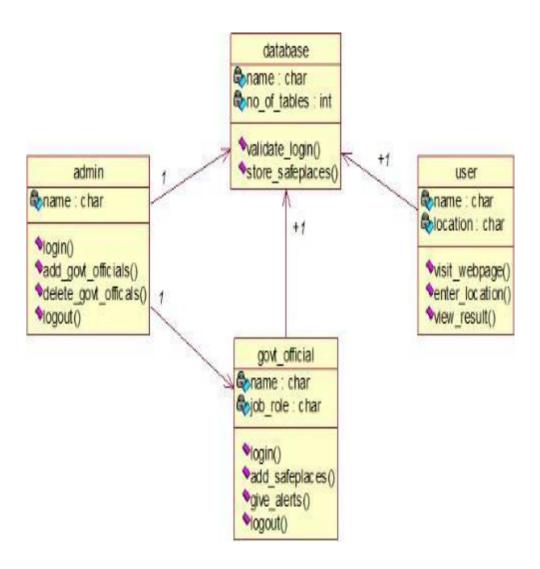
3. Generalization:

It is a special kind of association representing a structural relationship between a whole and its part graphically it is represented as solid line with diamond.

4. Realization:

It is a semantic relationship between classifiers where in one classifier specifies a contract that another classifier guarantees to carry out. Graphically it is represented as cross between a generalization and a dependency relationship.

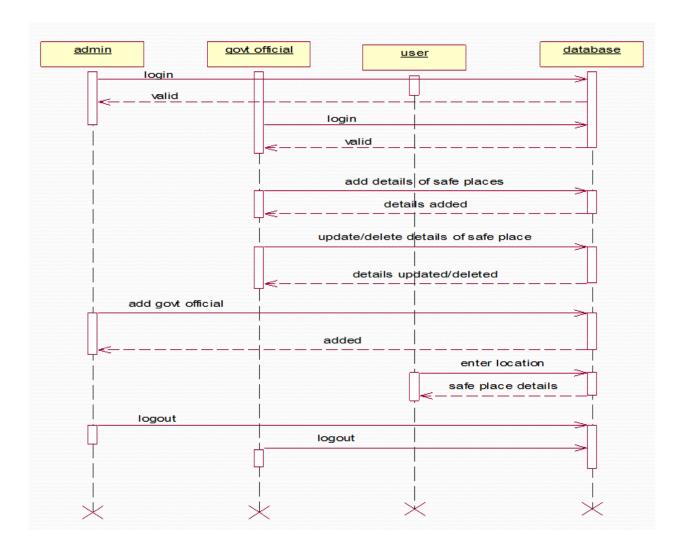
5.2.2 Class Diagram for Disaster Management:



5.3Sequence Diagram:

Sequence diagram is an interaction diagram which focuses on the time ordering of messages. It shows a set of objects and messages exchange between these objects. This diagram illustrates the dynamic view of a system.

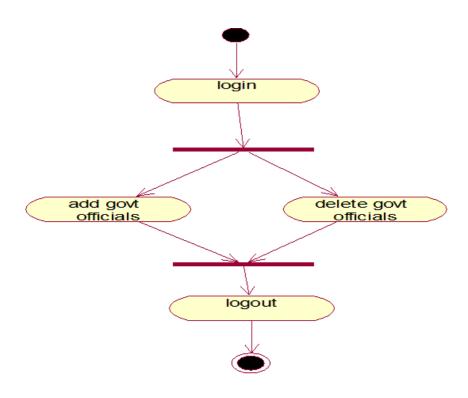
5.3 Sequence Diagram for Disaster Management:



5.4 Activity Diagram:

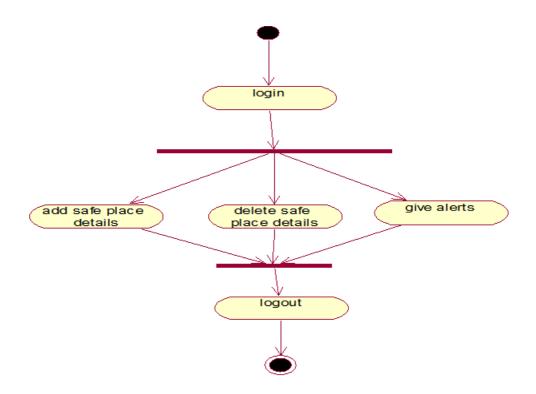
Activity diagram is basically a flow chart to response the flow form one activity to another activity. The activity can be described as an operation of the system. So the control flow is drawn from one operation to another. This flow can be sequential, branched or concurrent. Activity diagram deals with all types of flow control by using different elements like Fork, Join.

5.4.1 Activity Diagram for Admin:

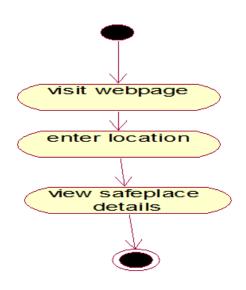


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5.4.2 Activity Diagram for Government Official:



5.4.3 Activity Diagram for User:

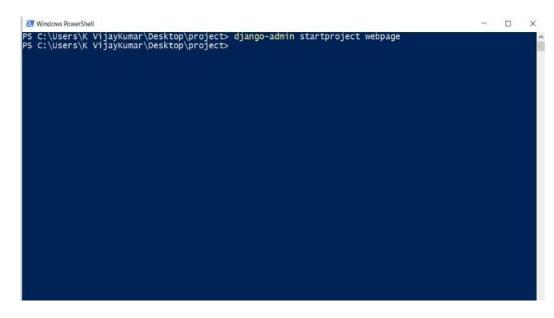


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6. SAMPLE CODE

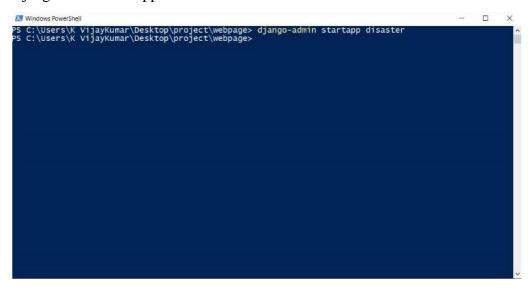
First we have to enter the following command to initialize a project

> django-admin startproject webpage



We know that a project is a collection of apps. In order to create an app named disaster, we need to execute the following command

> django-admin startapp disaster



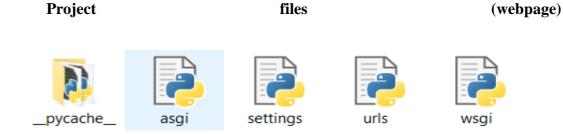
By the following command, we can store tables in the inbuilt database. (SQLite3)

> python manage.py migrate

```
PS C:\Users\K vijayKumar\Desktop\project\webpage> python manage.py migrate
Operations to perform:
Apply all migrations: admin, auth, contenttypes, sessions
Running migrations:
Applying contenttypes.0001_initial... OK
Applying auth.0001_initial... OK
Applying admin.0001_initial... OK
Applying admin.0002_logentry_remove_auto_add... OK
Applying admin.0003_logentry_add_action_flag_choices... OK
Applying contenttypes.0002_remove_content_type_name... OK
Applying auth.0002_alter_permission_name_max_length... OK
Applying auth.0003_alter_user_username_opts... OK
Applying auth.0004_alter_user_username_opts... OK
Applying auth.0005_alter_user_last_login_null... OK
Applying auth.0006_require_contenttypes.0002... OK
Applying auth.0006_require_contenttypes.0002... OK
Applying auth.0007_alter_user_last_name_max_length... OK
Applying auth.0009_alter_user_last_name_max_length... OK
Applying auth.0009_alter_user_last_name_max_length... OK
Applying auth.0010_alter_group_name_max_length... OK
Applying auth.0011_update_proxy_permissions... OK
Applying sessions.0001_initial... OK
```

Project Files





App files (disaster)













Html files

















6.1 views.py

```
from django.shortcuts import render
from disaster.models import main,login,givealert
from django.http import HttpResponse
def index(request):
       Template_get="index.ht"
       ml"
       request.method=='GET'
              govtalert={'alert':givealert.objects.last()}
              return
              render(request,Template_get,govtalert)
       if
                               request.method=='POST':
              govtalert={'alert':givealert.objects.last()}
              render(request,Template_get,govtalert)
def index_post(request):
       Template_post="output.ht"
       ml"
       request.method=='POST':
              try:
                      num=request.POST.get('input',None)
                     selected_choice=main.objects.get(yourlocation=n
                      um) context={'data':selected_choice}
              except main.DoesNotExist:
                     raise
                                        Http404("login
              DoesNotExist")
                                                 return
              render(request,Template_post,context)
def govt_page(request):
       Template_alert="alert.html
            Template="login.html"
       Template_admin="admin.ht
       ml" if request.method ==
       'GET':
              return render(request,Template)
       if request.method == 'POST':
              user
              request.POST.get('user',False) pas =
              request.POST.get('passkey',False)
              if login.objects.filter(username=user).exists()
and login.objects.filter(password=pas).exists():
```

```
return render(request, Template_admin)
              else:
                     context={'error':"username or password is
                     wrong"}
                                                              return
                     render(request,Template,context)
def forgot(request):
       Template="forgotpswd.ht"
       ml" if request.method ==
       'GET':
              return render(request,Template)
       if request.method == 'POST':
              username
                                                        =
              request.POST.get('username',False)
              schoolans
                                                        =
              request.POST.get('school',False)
              login.objects.get(username=username) ans
              = login.objects.get(answer=schoolans)
              if user and ans:
                     context={'user':login.objects.get(username=userna
                     me)} return render(request,Template,context)
def adddata(request):
       if
                                 =="GET":
              request.method
                                    ="enter
              Template_alert
              data.html"
              return render(request,Template_alert)
       if
           request.method ==
                                  "POST":
              Template data="enter
              data.html"
              safeplaces1
                                 request.POST.get('safeplace1')
              safeplaces2
                                 request.POST.get('safeplace2')
              safeplaces3
                                 request.POST.get('safeplace3')
                             =
              safeplaces4
                                 request.POST.get('safeplace4')
                             =
              safeplaces5
                                 request.POST.get('safeplace5')
              transports1
                                  request.POST.get('transport1')
                             =
                                  request.POST.get('transport2')
              transports2
              transports3
                            =
                                 request.POST.get('transport3')
              rescue1 = request.POST.get('rescue1')
              rescue2 = request.POST.get('rescue2')
              rescue3 = request.POST.get('rescue3')
```

```
if
                     main.objects.filter(yourlocation=safeplaces1).exists():
                     context={'error':"entered location is all ready exist"}
                      return render(request,Template_data,context)
              else:
                      post=main(yourlocation=safeplaces1,
                         safeplacesname=safeplaces2,
                         safeplacesdistance=safeplaces3,
                         safeplacescapacity=safeplaces4,
                         safeplacescontact=safeplaces5,
                         transportname=transports1,
                         transporttypeof=transports2,
                         transportcontact=transports3,
                         rescueteammembers=rescue2,
                         rescuecontact=rescue3,
                         rescueteamtype=rescue1,
                     post.save()
                     return render(request,Template_data)
def govtadmin(request):
       Template_addgovt="add govt.html"
       return
       render(request,Template_addgovt)
def alert(request):
       Template_admin="alert.ht
       ml"
       request.method=="GET":
       render(request,Template_admin)
                                               if
       request.method=="POST":
              alert = request.POST.get('alert_','True')
                              givealert.objects.create(alertinfo=alert)
              return render(request,Template_admin)
```

6.2 Urls.py (disaster)

```
from django.urls import path
from django.contrib import
admin
from views import govt_page,alert,adddata,govtadmin,index,index_post,forgot

urlpatterns = [
    path(", index,),
    path('main/',index_post,),
    path('login/',govt_page,name="govtlogin"),
    path('login/forgotpassword',forgot),
    path('login/alert/',alert,name="alert"),
    path('login/newdata/',adddata,name="newdata"),
    path('login/addgovt/',govtadmin,name="addgovt")
]
```

6.3 Urls.py (webpage)

```
from django.contrib import
admin from django.urls import
include,path import views

urlpatterns = [
   path('admin/', admin.site.urls),
   path(",include('disaster.urls')),
]
```

6.4 Manage.py

```
#!/usr/bin/env python
"""Django's command-line utility for administrative
tasks.""" import os
import sys
def main():
  os.environ.setdefault('DJANGO_SETTINGS_MODULE', 'webpage.settings')
  try:
    from django.core.management import execute_from_command_line
  except ImportError as exc:
    raise ImportError(
       "Couldn't import Django. Are you sure it's installed and "
      "available on your PYTHONPATH environment variable? Did
      you " "forget to activate a virtual environment?"
    )
  execute_from_command_line(sys.argv)
if__name___== '_main_':
  main()
6.5 Settings.py
import os
# Build paths inside the project like this: os.path.join(BASE_DIR, ...)
BASE_DIR = os.path.dirname(os.path.dirname(os.path.abspath( file )))
# Quick-start development settings - unsuitable for production
# See https://docs.djangoproject.com/en/3.0/howto/deployment/checklist/
# SECURITY WARNING: keep the secret key used in production secret!
SECRET KEY
'k4j=g_2hx44+vgv1n_)3yby04=x73ouuis2ezemmlz&^@h@#@o'
# SECURITY WARNING: don't run with debug turned on in production!
```

```
DEBUG = True
ALLOWED_HOSTS = []
# Application definition
INSTALLED_APPS = [
  'disaster.apps.DisasterConfig',
  'django.contrib.admin',
  'django.contrib.auth',
  'django.contrib.contenttypes',
  'django.contrib.sessions',
  'django.contrib.messages',
  'django.contrib.staticfiles',
]
MIDDLEWARE = [
  'django.middleware.security.SecurityMiddleware',
  'django.contrib.sessions.middleware.SessionMiddleware',
  'django.middleware.common.CommonMiddleware',
  'django.middleware.csrf.CsrfViewMiddleware',
  'django.contrib.auth.middleware.AuthenticationMiddleware',
  'django.contrib.messages.middleware.MessageMiddleware',
  'django.middleware.clickjacking.XFrameOptionsMiddleware',
]
ROOT URLCONF
'webpage.urls' TEMPLATES = [
  {
    'BACKEND':
    'django.template.backends.django.DjangoTemplates',
                                                          'DIRS':
    ["template"],
    'APP_DIRS':
    True,
    'OPTIONS': {
       'context_processors':
                                                               'django.template.context_processors.debug',
         'django.template.context_processors.request',
         'django.contrib.auth.context_processors.auth',
         'django.contrib.messages.context_processors.messages',
       ],
    },
  },
1
```

```
STATICFILES_DIRS = [
  os.path.join(BASE_DIR,
                                    "static"),
  '/webpage/static',
1
WSGI_APPLICATION = 'webpage.wsgi.application'
# Database
# https://docs.djangoproject.com/en/3.0/ref/settings/#databases
DATABASES = {
  'default': {
    'ENGINE': 'django.db.backends.sqlite3', 'NAME':
    os.path.join(BASE_DIR, 'db.sqlite3'),
  }
}
# Password validation
# https://docs.djangoproject.com/en/3.0/ref/settings/#auth-password-validators
AUTH_PASSWORD_VALIDATORS = [
    'NAME': 'django.contrib.auth.password_validation.UserAttributeSimilarityValidator',
  },
    'NAME': 'django.contrib.auth.password_validation.MinimumLengthValidator',
  },
    'NAME': 'django.contrib.auth.password_validation.CommonPasswordValidator',
  },
    'NAME': 'django.contrib.auth.password_validation.NumericPasswordValidator',
  },
]
# Internationalization
#
https://docs.djangoproject.com/en/3.0/topics/i18
n/LANGUAGE_CODE = 'en-us'
TIME_ZONE = 'UTC'
```

```
USE_I18N = True
USE_L10N = True
```

 $USE_TZ = True$

Static files (CSS, JavaScript, Images)

https://docs.djangoproject.com/en/3.0/howto/static-

files/ STATIC_URL = '/static/'

6.6 Apps.py

from django.apps import AppConfig class DisasterConfig(AppConfig): name = 'disaster'

6.7 Asgi.py

import os

from django.core.asgi import get_asgi_application os.environ.setdefault('DJANGO_SETTINGS_MODULE', 'webpage.settings') application = get_asgi_application()

6.8 wsgi.py

import os

from django.core.wsgi import get_wsgi_application os.environ.setdefault('DJANGO_SETTINGS_MODULE', 'webpage.settings') application = get_wsgi_application()

```
6.9 models.py
from
      django.db
                  import
models
                    class
main(models.Model):
#safeplaces
  yourlocation
  models.CharField(max length=200,default='null')
  safeplacesname
                                                              =
  models.CharField(max_length=200,default='kkd')
                         =
  safeplacesdistance
                                models.IntegerField(default='23')
                              models.IntegerField(default='200')
  safeplacescapacity
  safeplacescontact = models.IntegerField(default='5679')
#transport
  transportname
                       models.CharField(max_length=200,default='orange
  travels')
                                 transporttypeof
  models.CharField(max_length=200,default='bus')
                                                    transportcontact
  models.IntegerField(default='5679')
#rescue
  rescueteamtype
  models.CharField(max_length=200,default='navy')
  rescueteammembers
                                  models.IntegerField(default='5')
  rescuecontact =models.IntegerField(default='420420')
#hospital
class login(models.Model):
  question
  models.CharField(max_length=100,default="testing")
  models.CharField(max_length=100,default="testing")
  username=models.CharField(max_length=200,default='null')
  password=models.CharField(max_length=200,default='null')
#alert
class givealert(models.Model):
  alertinfo = models.CharField(max_length=50,default="testing")
6.10 admins.py
from django.contrib import admin
from .models import main,login,givealert
```

admin.site.register(main) admin.site.register(login) admin.site.register(givealert)

6.11 HTML Files:

index.html

```
<html>
<head>
<title>disaster management</title>
       {% load static %}
<meta name="viewport" content="width=device-width, initial-scale=1.0">
link rel="stylesheet" href="{% static 'css/main.css' %}" type="text/css">
</head>
<body bgcolor="grey">
<div class="disaster">
<h3 class="disastercenter">DISASTER MANAGEMENT</h3></div>
<form method="post" action="">
{% csrf_token %}
<h2 class="alertmain">ALERT:</h2><label class="alertindex">{{ alert.alertinfo
}}</label><br>
 <input type="submit" value="update" class="alertupdate" />
</form>
<hr>>
<form method="POST" action="/main/">
{% csrf token %}
<label class="labelindex">Enter your location:</label><br>
<input type="text" placeholder="enter location" name="input" class="input"></input>
<button class="inputbutton">submit</button>
</form>
<label class="govlabel">govt offical</label><br>
<img src="{% static 'css/govt.png' %}" class="govtmain"><br>
         type="button"
                        onclick="location.href='{%
                                                            'govtlogin'
                                                                         %}'''
                                                      url
class="logingov" name="govtlogin" value="log in">
<form method="POST" action="/admin/">
{% csrf token %}
<label class="djangoadmin">admin</label><br>
<img src="{% static 'css/govt.png' %}" class="govindex"><br>
<button class="govtlogin">login</button>
</form>
<div class="refabout">
<label class="refrence">Refrence Link</label><br>
```

```
<label
              class="link1">1st
                                       Link:</label>
                                                                       class="reflink"
                                                            <a
href="https://www.msc.fema.gov/portal/search#searchresultsanchor">https://msc.fema.g
ov/p ortal/search#searchresultsanchor</a>
<label
           class="link2"
                                       Link:</label>
                                                                  class="reflink1"
                                                          <a
href="https://www.Disaster-
                                  survival-resources.com">www.Disaster-survival-
resources.com"</a>
<label class="link3">3rd Link:</label> <a class="reflink2"</pre>
href="https://www.media.ifrc.org/ifrc">www.media.ifrc.org/ifrc
</a>
<label class="about">About us</label>
<label class="about1">admn name:hitler</label>
<label class="about2">contact:123456</label>
<label class="about3">email:hitler@gmail.com</label>
<label class="about4">address:india</label>
</div>
</body>
</html>
```

Output.html

```
<html>
<head>
<title>main</title>
</head>
{% load static %}
link rel="stylesheet" href="{% static 'css/main.css' %}" type="text/css">
<body bgcolor="grey">
<div class="output">
<center><label class="outputloc">Enter your
location:{{data.yourlocation}}</label></center>
<br/>br>
<center>
<center>Safeplaces</center>
<center>safepoint:</center><center>{{data.safeplacesname}}</center>
<center>distance:</center><center>{{ data.safeplacesdistance}}
} </center>
<center>contact:</center><center>{{ data.safeplacescontact}
} </center>
<center>capacity:</center>
} </center>
Transport
<center>name</:</td>
<center>type of:</center><center>{{data.transporttypeof}}
} </center>
<center>contact</:</td><center>{{ data.transportcontact}}
}}</center>
Rescue team
<tc>tr><center>team members:</center><center>{{ data.rescueteamtype}
} </center>
<center>team type:</center><center>{{ data.rescueteammembers}}
} </center>
<center>team contact:</center><center>{{ data.rescuecontact}
</center>
</div>
</body></html>
```

Login.html

```
<html>
<head>
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
{% load static %}
link rel="stylesheet" href="{% static 'css/main.css' %}" type="text/css">
<title>login</title>
</head>
<body bgcolor="grey">
<img src="{% static 'css/govt.png' %}" class="govtimage" />
<center><div class="title"><h2>govt offical</h2></div></center>
<form method="POST" action="">
       {% csrf_token %}
       <h3 class="errorlogin">{{error}}</h3>
<label class="login"><b>Login:</b></label><input type="text" placeholder=" enter login"</pre>
name="user" class="logintext"></input><br>
<label class="password"><b>Password:</b></label><input type="password"</pre>
placeholder="enter
                                  password"
                                                            name="passkey"
class="passwordtext"></input><br>
<a href="forgotpassword" class="forgotpassword1">forgot password</a>
<button class="loginbutton1">login</button>
</form>
</body>
</html>
```

Admin.html

```
<html>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  {% load static %}
k rel="stylesheet" href="{% static 'css/main.css' %}" type="text/css">
<script src="{% static 'css/test.js' %}" type="text/javascript"></script>
<title>govt user</title>
<body bgcolor="grey">
<center><h1 class="admintitle">govt officals</h1></center><br>
<div class="border">
<form method="POST" action="alert/">
       {% csrf_token %}
<\!\!\!\text{button}\quad onclick = \!\!\!\text{"location.href} = \!\!\!\text{"} \{\% \quad url \quad \!\!\!\text{'alert'} \quad \% \,\} \text{""} \quad name = \!\!\!\!\text{"username"}
class="alert"
                placeholder="give alert" value="enter
                                                               alert"
                                                                        >enter
alert</button><br>
</form>
<form method="POST" action="newdata/">
       {% csrf_token %}
<input type="button" name="username" onclick="location.href='{% url 'newdata'</pre>
% }" class="newdata" placeholder="give alert" value="add new data"/><br><br>
</form>
</div>
</body>
</html>
```

Forgot password.html

```
<html>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
     {% load static %}
k rel="stylesheet" href="{% static 'css/main.css' %}" type="text/css">
<body bgcolor="grey">
<form method="post">
             {%csrf_token%}
<center class="forgottitle">FORGOT PASSWORD</center>
                class="forgotuser">what is your user
<center><label
                                                          name:</label><input
type="text"
                placeholder="enter
                                       user
                                                name"
                                                            name="username"
class="forgotusertext"><br></center>
                 class="forgotschool">what
<center><label
                                              is
                                                                   school
                                                   your
                                                           first
name:</label><input
                     type="text"
                                   placeholder="enter
                                                       security
                                                                 answer"
class="forgotschooltext" name="school"><br></center>
<center><input type="submit" name="" class="forgotsubmit"></center>
<h2 class="usernameforgot">username:{{user.username}}</h2>
<h2 class="passwordforgot">password:{{user.password}}</h2>
</form>
</body>
</html>
```

Alert.html

Enter data.html

```
<html>
<head>
<title>,enter new data</title>
       {% load static %}
rel="stylesheet" href="{% static 'css/main.css' %}" type="text/css">
<link rel="stylesheet" type="text/css" href="sample.css">
</head>
<body bgcolor="grey">
<center><h1 class="titl"><b>Enter data</b></h1></center>
<form method="post">
             {% csrf_token %}
<div class="safeplace">
<h3 class="errordata">{{error}}</h3>
<br/><br/>b class="bold">safe places:</b><br><br>
<label class="enterlabel">location: </label><input type="text" placeholder="entered"</pre>
location " class="safe" name="safeplace1" ></input><br><br><br></
<label
           class="enterlabel">safepoint:
                                           </label><input
                                                             type="text"
placeholder="enter safepoint" class="safe" name="safeplace2" ><br><br>
<label class="enterlabel">distance: </label><input type="text" placeholder="enter"</pre>
distance" class="safe" name="safeplace3"><br><br>>
<label class="enterlabel">capacity: </label><input type="text" placeholder="enter"</pre>
capacity" class="safe" name="safeplace4"><br><br>
<label class="enterlabel">contact: </label><input type="text" placeholder="enter"</pre>
scontact" class="safe" name="safeplace5"><br><br>
</div>
<div class="transportfac">
<b class="bold">Transport:</b><br><br
           class="enterlabel">name:
<label
                                       </label><input
                                                          type="text"
placeholder="enter
                            transportname"
                                                     class="transport"
name="transport1"><br><br>
<label class="enterlabel">type: </label><input type="text" placeholder="enter</pre>
type" class="transport" name="transport2"><br><br>
<label class="enterlabel">contact: </label><input type="text" placeholder="enter</pre>
</div>
<div class="rescue">
<br/>
<br/>
d">rescue team:</b><br>
br>
<label
           class="enterlabel">teamtype:
                                           </label><input
                                                             type="text"
<label
           class="enterlabel">members:
                                           </label><input
                                                             type="text"
placeholder="enter members" class="rescueforce" name="rescue2"><br><br>
<label class="enterlabel">contact: </label><input type="text" placeholder="enter"</pre>
contact" class="rescueforce" name="rescue3">
```

```
</div>
<input type="submit" value="submit" name="" class="enterdata">
</form>
</body>
</html>
```

7. TEST CASES

7.1 Introduction

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. It provides a way to check the functionality of components, sub-assemblies, assemblies and/or a finished product. It is the process of exercising software with the intent of ensuring that the software system meets its requirements and user expectations and does not fail in an unacceptable a specific testing requirement.

7.2 Types of Testing

7.2.1 Unit Testing

Unit testing involves the design of test cases that validate that the internal program logic is functioning properly, and that program inputs produce valid outputs. All decision branches and internal code flow should be validated. It is the testing of individual software units of the application. It is done after the completion of an individual unit before integration. This is the structural testing, that relies on knowledge of its construction and is invasive. Unit tests perform basic tests at component level and test a specific business process, application, and/or system configuration. Unit tests ensure that each unique path of a business process performs accurately to the documented specifications and contain clearly defined inputs and expected inputs and expected results.

7.2.2 Integration Testing

Integration tests are designed to test integrated software components to determine if they actually run as one program. Testing is event driven and is more concerned with the basic outcome of screens or fields. Integration tests demonstrate that although the components were individually satisfaction as show by successfully unit testing, the combination of components is correct and consistent. Integration testing is specifically aimed at exposing the problems that arise from the combination of components.

7.2.3 Functional Testing:

Functional test provide systematic demonstration that functions tested are available as specified by the business and technical requirements, system documentation, and user manuals.

Functional testing is centered on the following items:

Valid Input : identified classes of valid input must

be accepted Invalid Input: identified classes of valid input must

be rejected Functions : identified functions must be exercised

Output : identified classes of application outputs must be exercised

Systems/Procedures: Interfacing system is must be invoked

Organization and preparation of functional test is focused on requirements. Key functions are special test cases. In addition systematic coverage pertaining to identify business process flows; data fields, pre defined processes and successive processes must be considered for testing.

7.2.4. System Testing:

System testing ensures that the entire integrated software system meets requirements. It tests configurations to ensure known and predictable results. An example of system testing is the configuration oriented system integration test. System testing is based on process description and flows, emphasizing pre-driven process links and integration points.

7.2.4.1 White Box Testing:

White Box Testing is a testing in which the software tester has knowledge of the inner workings. Structure and language of the software are at least its purpose it is used to test areas that cannot reached from a black box level.

7.2.4 Black Box Testing

Black box Testing is testing the software without any knowledge of the inner working, structure or language of the module being tested. Black box tests, as most other kinds of tests. Black box testing is testing the software without any knowledge of the inner working structure or language of the module being tested. Black box tests, as most other kinds of tests must be written from the definitive source document, such as specification or requirement document. It is a testing in which the software under test is treated, as a black box. You cannot see into it. The test provides inputs and responds to outputs without considering how the software works.

7.3 Test Cases:

Unit Testing:

Unit testing is usually conducted as part of a combine and unit test phase of the software life cycle, although it is not uncommon for coding and unit testing to be conducted as two distinct phases.

Test strategy and approach:

Field testing will be performed manually and functional tests will be written in detail.

Test Objectives:

- ➤ All field entries must work properly.
- Pages must be activated from the identified links.
- > The entry screen, messages and response must not be delayed.

Features to be tested:

- ➤ Verify that the entries are of the correct format.
- ➤ No duplicate entries should be allowed.
- ➤ All links should take the user to the correct page.

Integration Testing:

Software integration testing is a incremental integration testing of two or more integrated software component on a single platform to produce failures caused by interface defects. The task of the integration test is to check that components or software applications, e.g components in a software system or —one step up —software applications at company level- interact without error.

Test Result:

All the test cases mentioned above passed successfully. No defects encountered.

Acceptance Testing:

User acceptance testing is a critical phase of any project and requires significant participation by the end users. It also ensures that system meets the functional requirements.

TEST	INPUT	DESCRIPTION	EXPECTED	ACTUAL	PASS/FAIL
CASES			RESULT	RESULT	
ID					
OSA-1-01	Blank Passwor d Blank	A blank username and password are required	Display user name or password is wrong	Display user name or password is wrong	Pass
OSA-1-02	Valid usernam e Passwor d Blank	A valid username and blank password is given by the user	Display user name or password is wrong	Display user name or password is wrong	Pass
OSA-1-03	User name blank valid and password	A blank username is valid password is given by the user	Display user name or password is wrong	Display user name or password is wrong	Pass

Disaster Management

A valid username and valid password is given by the user	OSA-1-04	Valid user name valid passwor d	Login successful ly	Login successful ly	Pass
A username with numbers and valid password is given by the user	OSA-1-05	Username with numbers with valid password	Display user name or password is wrong	Display user name or password is wrong	Pass
A username with special symbol and valid password is given by the user	OSA-1-06	Username with %,\$,#, valid password	Display user name or password is wrong	Display user name or password is wrong	Pass
An username with spaces and valid password is given by the user	OSA-1-07	Username with spaces valid password	Display user name or password is wrong	Display user name or password is wrong	Pass
An invalid username and invalid password is given by the user	OSA-1-08	Invalid userna me, invalid passwor d	Display user name or password is wrong	Display user name or password is wrong	Pass

8. OUTPUT SCREENS

Fig 8.1 Index Page:

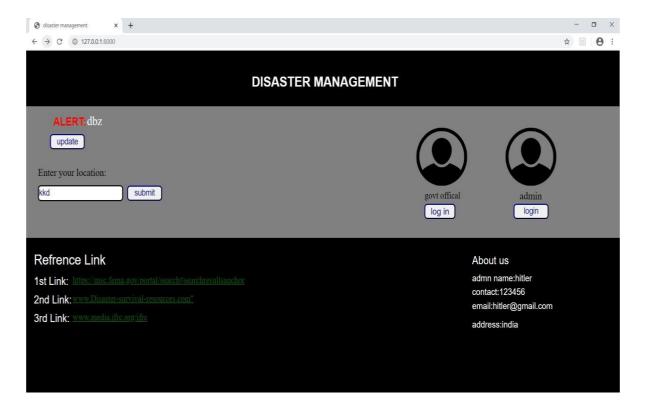


Fig 8.2 Safe Places:

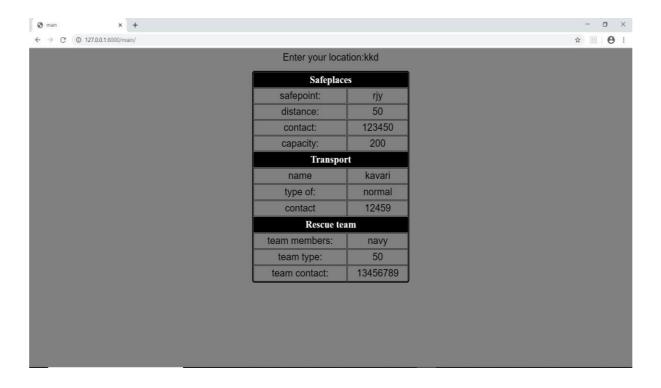


Fig 8.3 Admin Login:

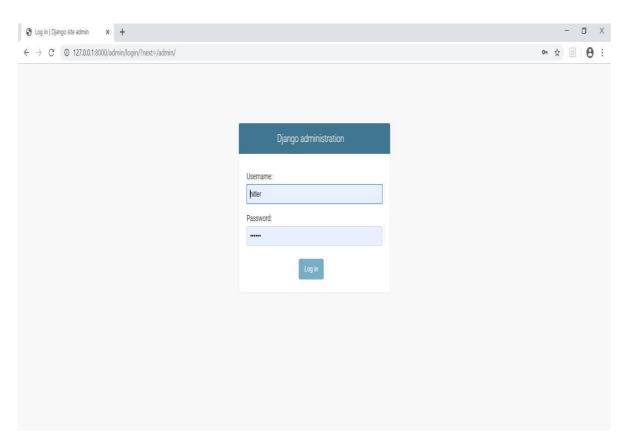


Fig 8.4 Administration Site:



Fig 8.5 Government Official Login:

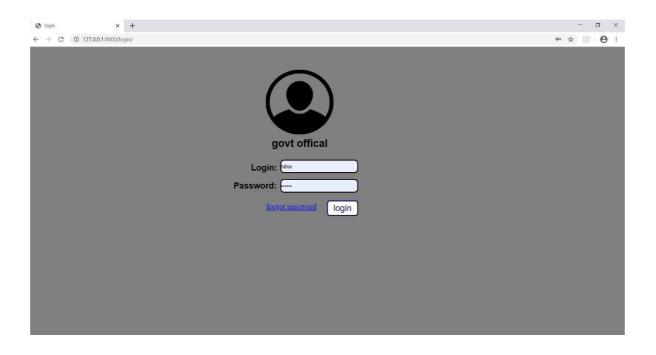


Fig 8.6 Forgot Password:

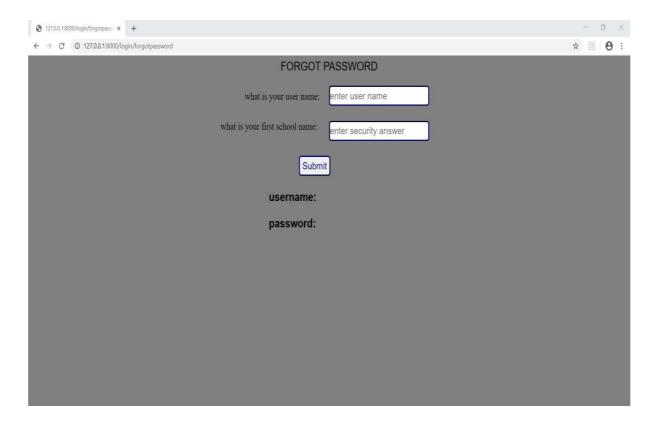
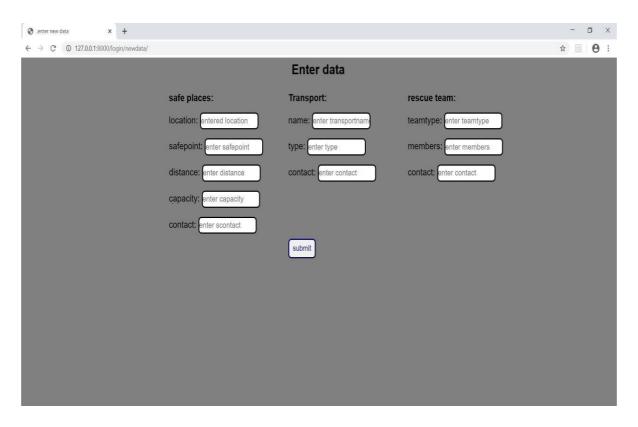


Fig 8.7 Adding New data:



9. CONCLUSION AND FUTURE SCOPE

Disaster Management on being implemented shows the nearby safe places, alerts about floods and other details like transport and rescue.

This project is good in saving the life of victims in the time of floods. It will be more useful when you visit the place which you don't know previously. We know that nothing is more precious than life of us. This project helps in surviving the lives of people in the above mentioned situation. We used Django technology in it for building this website. It contains inbuilt database named sql lite3, so we can use that database for the needs of database. Adding new data to this database is easy task when compared to other databases. We has given the duty of entering details about safe places to government as we can get the correct information. User will get the safe place details by entering his current location.

The world will not look the same as it does today. Shifting demographics and the rate of technological innovation will challenge the way we plan and communicate with the public. More frequent and more intense floods will present operational challenges and complexities. Any of these issues alone would challenge some current emergency management policies and procedures. Forces of change produce a difficult, highly uncertain future, the complexity of which will test the ability of the emergency management community to execute our mission. Exploring the nature of such future challenges can help us take actions to improve resilience and adaptability. Rapid advancement of technology could be deployed in efficiently tackling the challenges emerging from disasters, minimizing the impact of disasters in terms of reducing the magnitude of death and casualties, improving the health and sanitary conditions of the affected population, rehabilitation of the victims, etc. Specific technological solutions can be utilized in all the phases of disaster management, namely, disaster preparedness, disaster reduction, disaster mitigation, and post-disaster rehabilitation. There is a need for the application of modern technologies in disaster management, wherever and whenever possible. Many frontier areas such as space technology, modern information and communication systems, renewable energy, advanced medical diagnostics, and remotely operated robotic systems for rescue and relief operations; find useful applications in disaster management efforts.

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