

## Fighting CORONA

The Pandemic of 2020

## **CERTIFICATE**

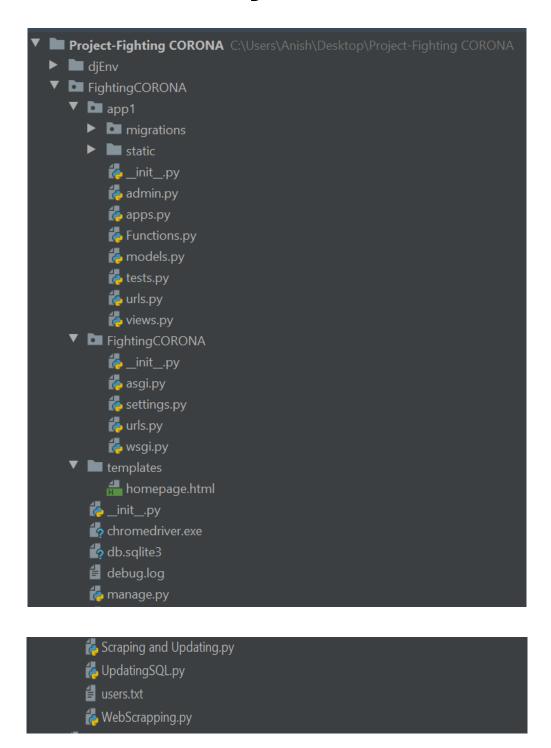
This is to certify that the content of this project entitled, 'FightingCORONA' has been completed successfully by [Name] of class XII Science of Bal Bhavan International School under my guidance in the academic year 2020-21. The project is a result of his efforts and endeavors. The project is found worthy of acceptance as final project report for the subject Computer Science of Class XII.

Reema Chaudhary

P.G.T. Computer Science

**Bal Bhavan International School** 

## **Directory structure**



## **HTML** and CSS



Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus.

#### SYMPTOMS

Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.

#### PREVENTION

The best way to prevent and slow down transmission is be well informed about the COVID-19 virus, the disease it causes and how it spreads. Protect yourself and others from infection by washing your hands or using an alcohol based rub frequently and not touching your face. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it's important that you also practice respiratory etiquette (for example, by coughing into a flexed elbow).

Want to fight corona? Sign in to our Newsletter!								
Enter Your Name:								
Email ID:								
someone@something.domain								
Country:								
SUBMIT RESET								

## Home page

#### Source Code:

```
{% load static %}
<!DOCTYPE html>
<ht.ml>
        <title>FIGHTING CORONA</title>
        <link rel="stylesheet" href="{% static 'general.css' %}">
    </head>
    <header style="background-image:url('{% static 'corona back 2.jpg' %}'); height:100%">
        <h1>FIGHTING CORONA</h1>
        <h3>The Pandemic of 2020</h3>
    </header>
    <content style="margin:1em;">
        <hr><hr><hr>>
        Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered
coronavirus.
        <h5>SYMPTOMS</h5>
Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer
are more likely to develop serious illness.
        <h5>PREVENTION</h5>
The best way to prevent and slow down transmission is be well informed about the COVID-19 virus, the disease it causes and how it spreads. Protect yourself and others from infection by
washing your hands or using an alcohol based rub frequently and not touching your face.
        The COVID-19 virus spreads primarily through droplets of saliva or discharge from the
nose when an infected person coughs or sneezes, so it's important that you also practice respiratory etiquette (for example, by coughing into a flexed elbow).
        <br><br><br>>
    </content>
        <div id=form>
             <h2>Want to fight corona?<br>
             Sign in to our Newsletter!
             </h2>
             <br>
                 <form action=# method="post">
                     {% csrf_token %}
                     <label>Enter Your Name:</label><br>
                     <input type=text name="Name:" required><br><br>
                     <label>Email ID:</label><br>
                      <input type= email name="Email:" title="someone@something.com" required</pre>
<label>Country:</label><br>
                      <input list="Country:" name="Country:" id="Country" required>
                      <datalist id="Country:" name="Country:">
                          <option value= "Afghanistan" > Afghanistan
                          <option value= "Albania" > Albania
                          <option value= "Algeria" > Algeria
                          <option value= "Andorra" > Andorra
                          <option value= "Angola" > Angola
                          <option value= "Anguilla" > Anguilla
                          <option value= "Antigua and Barbuda" > Antigua and Barbuda/option>
                          <option value= "Argentina" > Argentina
                          <option value= "Armenia" > Armenia
                          <option value= "Aruba" > Aruba
                          <option value= "Australia" > Australia
                          <option value= "Austria" > Austria
                          <option value= "Azerbaijan" > Azerbaijan
                           <option value= "Bahamas" > Bahamas
```

```
<option value= "Bahrain" > Bahrain
<option value= "Bangladesh" > Bangladesh</option>
<option value= "Barbados" > Barbados</option>
<option value= "Belarus" > Belarus
<option value= "Belgium" > Belgium
<option value= "Belize" > Belize
<option value= "Benin" > Benin
<option value= "Bermuda" > Bermuda
<option value= "Bhutan" > Bhutan
<option value= "Bolivia" > Bolivia
<option value= "Bosnia and Herzegovina" > Bosnia and Herzegovina/option>
<option value= "Botswana" > Botswana
<option value= "Brazil" > Brazil
<option value= "British Virgin Islands" > British Virgin Islands
<option value= "Brunei" > Brunei
<option value= "Bulgaria" > Bulgaria
<option value= "Burkina Faso" > Burkina Faso
<option value= "Burundi" > Burundi
<option value= "CAR" > CAR</option>
<option value= "Cabo Verde" > Cabo Verde</option>
<option value= "Cambodia" > Cambodia
<option value= "Cameroon" > Cameroon
<option value= "Canada" > Canada
<option value= "Caribbean Netherlands" > Caribbean Netherlands/option>
<option value= "Cayman Islands" > Cayman Islands
<option value= "Chad" > Chad</option>
<option value= "Channel Islands" > Channel Islands/option>
<option value= "Chile" > Chile</option>
<option value= "China" > China
<option value= "Colombia" > Colombia
<option value= "Comoros" > Comoros
<option value= "Congo" > Congo</option>
<option value= "Costa Rica" > Costa Rica
<option value= "Croatia" > Croatia
<option value= "Cuba" > Cuba</option>
<option value= "Curação" > Curação</option>
<option value= "Cyprus" > Cyprus
<option value= "Czechia" > Czechia
<option value= "DRC" > DRC</option>
<option value= "Denmark" > Denmark
<option value= "Diamond Princess" > Diamond Princess
<option value= "Djibouti" > Djibouti
<option value= "Dominica" > Dominica</option>
<option value= "Dominican Republic" > Dominican Republic
<option value= "Ecuador" > Ecuador</option>
<option value= "Egypt" > Egypt</option>
<option value= "El Salvador" > El Salvador
<option value= "Equatorial Guinea" > Equatorial Guinea/option>
<option value= "Eritrea" > Eritrea
<option value= "Estonia" > Estonia
<option value= "Eswatini" > Eswatini<option value= "Ethiopia" > Ethiopia
<option value= "Faeroe Islands" > Faeroe Islands
<option value= "Falkland Islands" > Falkland Islands/option>
<option value= "Fiji" > Fiji</option>
<option value= "Finland" > Finland
<option value= "France" > France
<option value= "French Guiana" > French Guiana
<option value= "French Polynesia" > French Polynesia
<option value= "Gabon" > Gabon</option>
<option value= "Gambia" > Gambia
<option value= "Georgia" > Georgia
<option value= "Germany" > Germany
<option value= "Ghana" > Ghana
<option value= "Gibraltar" > Gibraltar
```

```
<option value= "Greece" > Greece</option>
<option value= "Greenland" > Greenland
<option value= "Grenada" > Grenada</option>
<option value= "Guadeloupe" > Guadeloupe</option>
<option value= "Guatemala" > Guatemala
<option value= "Guinea" > Guinea</option>
<option value= "Guinea-Bissau" > Guinea-Bissau
<option value= "Guyana" > Guyana
<option value= "Haiti" > Haiti
<option value= "Honduras" > Honduras
<option value= "Hong Kong" > Hong Kong</option>
<option value= "Hungary" > Hungary
<option value= "Iceland" > Iceland
<option value= "India" > India
<option value= "Indonesia" > Indonesia
<option value= "Iran" > Iran
<option value= "Iraq" > Iraq</option>
<option value= "Ireland" > Ireland
<option value= "Isle of Man" > Isle of Man</option>
<option value= "Israel" > Israel
<option value= "Italy" > Italy
<option value= "Ivory Coast" > Ivory Coast
<option value= "Jamaica" > Jamaica
<option value= "Japan" > Japan
<option value= "Jordan" > Jordan
<option value= "Kazakhstan" > Kazakhstan
<option value= "Kenya" > Kenya<option value= "Kuwait" > Kuwait/option>
<option value= "Kyrgyzstan" > Kyrgyzstan</option>
<option value= "Laos" > Laos
<option value= "Latvia" > Latvia
<option value= "Lebanon" > Lebanon
<option value= "Lesotho" > Lesotho
<option value= "Liberia" > Liberia
<option value= "Libya" > Libya</option>
<option value= "Liechtenstein" > Liechtenstein
<option value= "Lithuania" > Lithuania
<option value= "Luxembourg" > Luxembourg</option>
<option value= "MS Zaandam" > MS Zaandam
<option value= "Macao" > Macao
<option value= "Madagascar" > Madagascar</option>
<option value= "Malawi" > Malawi
<option value= "Malaysia" > Malaysia
<option value= "Maldives" > Maldives
<option value= "Mali" > Mali
<option value= "Malta" > Malta
<option value= "Martinique" > Martinique
<option value= "Mauritania" > Mauritania
<option value= "Mauritius" > Mauritius
<option value= "Mayotte" > Mayotte
<option value= "Mexico" > Mexico</option>
<option value= "Moldova" > Moldova</option>
<option value= "Monaco" > Monaco</option>
<option value= "Mongolia" > Mongolia
<option value= "Montenegro" > Montenegro
<option value= "Montserrat" > Montserrat
<option value= "Morocco" > Morocco</option>
<option value= "Mozambique" > Mozambique</option>
<option value= "Myanmar" > Myanmar<option value= "Namibia" > Namibia/option>
<option value= "Nepal" > Nepal
<option value= "Netherlands" > Netherlands
<option value= "New Caledonia" > New Caledonia
<option value= "New Zealand" > New Zealand
<option value= "Nicaragua" > Nicaragua
```

```
<option value= "Niger" > Niger</option>
<option value= "Nigeria" > Nigeria
<option value= "North Macedonia" > North Macedonia/option>
<option value= "Norway" > Norway</option>
<option value= "Oman" > Oman
<option value= "Pakistan" > Pakistan
<option value= "Palestine" > Palestine
<option value= "Panama" > Panama
<option value= "Papua New Guinea" > Papua New Guinea
<option value= "Paraguay" > Paraguay
<option value= "Peru" > Peru</option>
<option value= "Philippines" > Philippines
<option value= "Poland" > Poland
<option value= "Portugal" > Portugal</option>
<option value= "Qatar" > Qatar
<option value= "Romania" > Romania
<option value= "Russia" > Russia
<option value= "Rwanda" > Rwanda
<option value= "Réunion" > Réunion
<option value= "S. Korea" > S. Korea
<option value= "Saint Kitts and Nevis" > Saint Kitts and Nevis
<option value= "Saint Lucia" > Saint Lucia
<option value= "Saint Martin" > Saint Martin
<option value= "Saint Pierre Miquelon" > Saint Pierre Miquelon/option>
<option value= "San Marino" > San Marino
<option value= "Sao Tome and Principe" > Sao Tome and Principe
<option value= "Saudi Arabia" > Saudi Arabia
<option value= "Senegal" > Senegal</option>
<option value= "Serbia" > Serbia
<option value= "Seychelles" > Seychelles</option>
<option value= "Sierra Leone" > Sierra Leone
<option value= "Singapore" > Singapore
<option value= "Sint Maarten" > Sint Maarten
<option value= "Slovakia" > Slovakia
<option value= "Slovenia" > Slovenia
<option value= "Somalia" > Somalia
<option value= "South Africa" > South Africa
<option value= "South Sudan" > South Sudan
<option value= "Spain" > Spain
<option value= "Sri Lanka" > Sri Lanka
<option value= "St. Barth" > St. Barth
<option value= "St. Vincent Grenadines" > St. Vincent Grenadines
<option value= "Sudan" > Sudan
<option value= "Suriname" > Suriname
<option value= "Sweden" > Sweden</option>
<option value= "Switzerland" > Switzerland
<option value= "Syria" > Syria
<option value= "Taiwan" > Taiwan
<option value= "Tajikistan" > Tajikistan
<option value= "Tanzania" > Tanzania
<option value= "Thailand" > Thailand
<option value= "Timor-Leste" > Timor-Leste
<option value= "Togo" > Togo</option>
<option value= "Trinidad and Tobago" > Trinidad and Tobago
<option value= "Tunisia" > Tunisia
<option value= "Turkey" > Turkey</pri>
<option value= "Turks and Caicos" > Turks and Caicos
<option value= "UAE" > UAE</option>
<option value= "UK" > UK</option>
<option value= "USA" > USA</option>
<option value= "Uganda" > Uganda</option>
<option value= "Ukraine" > Ukraine
<option value= "Uruguay" > Uruguay
<option value= "Uzbekistan" > Uzbekistan
<option value= "Vatican City" > Vatican City
```

#### **CSS**

font-weight: 1000;

```
font-family: "Arial Rounded MT", sans-
                                                      serif;
    box-sizing:border-box;
                                                          font-size: 1.5em;
body{
                                                      #form:h2{font-size:2em;}
    margin:1em;
                                                      input{
    padding:0;
                                                          margin:auto;
                                                         padding:1em;
header{
                                                          width:100%;
   height:100%;
                                                         height:50px;
   margin:auto;
                                                          border-radius:50px;
    width:fill-parent;
                                                          border:2px solid gray;
   background-attachment: fixed;
                                                          font-size: 0.75em;
    background-repeat: no-repeat;
    background-position:right top;
    background-size: cover;
                                                      input:hover{border-color:blue}
    background-color: #760202;
                                                      input[type=submit],input[type=reset]{
    color:white;
                                                          padding:1px;
   text-shadow: 2px 2px 15px black;
                                                          width:50%;
    font-size: 2em;
                                                         background-color:#e00000;
   padding:50px;
                                                          color:white;
                                                          border-color:white:
content{
                                                          font-size:1em;
        margin:2em;
                                                          font-weight: bold;
        padding:1em;
        font-size:1.5em;
                                                      input[type=submit]:hover,input[type=reset]:h
                                                      over{
#form{
                                                         background-color: #ff4500;
    width: fill-parent;
                                                          color:darkred;
    padding:1em;
                                                         border-color:darkred:
    text-align:center;
                                                          font-size:1em;
    color:white;
```

## DJANGO Web framework

## Functions.py

```
import smtplib
import ssl
import random
def mail(receiver email, message):
    port = 465 # For SSL
    smtp_server = "smtp.gmail.com"
    sender_email = "fightingcorona2021@gmail.com" # Enter your address
    password = "pxfvucsampcosost"
    context = ssl.create default context()
    with smtplib.SMTP SSL(smtp server, port, context=context) as server:
        server.login(sender email, password)
        server.sendmail(sender email, receiver email, message)
def getTip():
    tips = [
    return (tips[random.randint(0, len(tips) - 1)])
```

#### views.py

```
from django.shortcuts import render
from django.core.files import File
from . import Functions
import smtplib,ssl
def home(request):
    if request.method =="POST":
        port = 465 # For SSL
        smtp server = "smtp.gmail.com"
        sender_email = "fightingcorona2021@gmail.com" # Enter your address
        receiver_email = "anishbanerjee2002@gmail.com" # Enter receiver address
        password = "pxfvucsampcosost"
        mydata = request.POST
        with open('users.txt','w') as f:
            wrt = File(f)
            for key,value in mydata.items():
                wrt.write(key)
                wrt.write(value)
        wrt.write("\n")
f=open("users.txt","r")
        strg=f.read()
        message = f"Subject: New login\n\nNew login!\n Details:{strg}"
        f.close()
        context = ssl.create_default_context()
        with smtplib.SMTP_SSL(smtp_server, port, context=context) as server:
            server.login(sender email, password)
            server.sendmail(sender email, receiver email, message)
    return render(request, "homepage.html")
# Create your views here.
```

#### urls.py

```
from django.contrib import admin
from django.urls import path, include
from app1 import views
urlpatterns = [
    path('admin/', admin.site.urls),
    path('home/', include('app1.urls'))
]
```

## **MySQL Tables**

## SQL table: data

NO	DATE	INDIA	WORLD	USA	CHINA	ITALY
1	2020-04-23	21797	2672191	852610	82798	187327
2	2020-04-24	23039	2718699	880204	82804	189973
3	2020-04-25	24447	2830082	925038	82816	192994
4	2020-04-26	26496	2921414	960896	82827	195351
5	2020-04-27	27890	2994761	987160	82830	197675
6	2020-04-28	29451	3064255	1010356	82836	199414
7	2020-04-29	31324	3138707	1035765	82858	201505
8	2020-04-30	33062	3220268	1064572	82862	203591
9	2020-05-01	34863	3308231	1095210	82874	205463
10	2020-05-02	37257	3401002	1131452	82875	207428
11	2020-05-03	39699	3483891	1160774	82877	209328
12	2020-05-04	42533	3566230	1188122	82880	210717
13	2020-05-05	46437	3645342	1212835	82881	211938
14	2020-05-06	49436	3743654	1237761	82883	213013
15	2020-05-07	52987	3821917	1263092	82885	214457
16	2020-05-08	57306	3955137	1297003	82886	215858
17	2020-05-09	59695	4012837	1321785	82887	217185
18	2020-05-10	62808	4100729	1347309	82901	218268
19	2020-05-11	67161	4180303	1367638	82918	219070
20	2020-05-12	70768	4254800	1385834	82919	219814
21	2020-05-13	74292	4342335	1408636	82926	221216
22	2020-05-14	78055	4429235	1430348	82929	222104
23	2020-05-15	81997	4525390	1457593	82933	223096
24	2020-05-16	86595	4652389	1484579	82941	223885
25	2020-05-17	90927	4722233	1507773	82047	224760

## SQL table: record

SNO	NAME	EMAIL	COUNTRY	DATE	TIME
1	Himanshu	hranjan2003@gmail.com	India	2020-08-07	01:24:57
2	Himanshu Ranjan	hranjan2003@gmail.com	USA	2020-08-07	01:32:53

# Web Scrapping with Selenium and MySQL Connectivity

## Scrapping and Updating.py

```
from selenium import webdriver
import unittest
import mysql.connector as mycon
import datetime
#Establish connection with database
con = mycon.connect(
    host="localhost",
    user="root"
    passwd="1234"
    database="users"
cursor = con.cursor()
cursor.execute("Select * from data")
data = cursor.fetchall()
try:sno=data[len(data)-1][0]+1
except:sno=1
#Get current date
def get_day():
    a=datetime.datetime.now()
    day=a.day
   month=a.month
    year=a.year
    day=f"{str(year)}-{str(month)}-{str(day)}"
    return day
#Scrapping
class WebTable:
    def __init__(self, webtable):
        self.table = webtable
    def column data(self, column number):
        col = self.table.find elements by xpath("//tbody[1]/tr/td[" +
str(column_number) + "]")
        rData = []
        for webElement in col:
            rData.append(webElement.text)
```

```
return rData
class Test(unittest.TestCase):
    def test web table(self):
        driver = webdriver.Chrome(executable_path=r".\chromedriver.exe")
        driver.implicitly_wait(30)
        driver.get("https://www.worldometers.info/coronavirus/")
        w =
WebTable(driver.find_element_by_xpath('//table[@id="main_table_countries_today"]/tbod
y[1]'))
        country=w.column_data(2)
        n coun=country.count('')
        for i in range(n coun):
            country.remove('')
        total_cases=w.column_data(3)
        n_total_cases=total_cases.count('')
        for i in range(n_total_cases):
            total cases.remove('')
        # Scrap the required details
        b=[]
        for k in ["India","World","USA","China","Italy"]:
            index coun = country.index(k)
            cases = total_cases[index_coun]
            temp=cases.split(',')
            for i in temp:
                j+=i
            cases=int(j)
            b.append(cases)
        #Insert into database
        cursor.execute(f'insert into data
values({sno},"{get_day()}",{b[0]},{b[1]},{b[2]},{b[3]},{b[4]});')
        con.commit()
        con.close()
        print("work successful")
        driver.close()
   __name__ == "__main__":
    unittest.main()
```

## UpdatingSQL.py

```
second=a.second
```

```
f.write("")

except Exception as e:
    print(e)
    print("Nothing to update")

upload()
```

## WebScrapping.py

```
from selenium import webdriver
import unittest
from app1 import Functions
import mysql.connector as mycon
import updatingsql as SQL
SQL.upload()
#Establish connection with database
con = mycon.connect(
cursor = con.cursor()
cursor.execute("Select * from record ORDER BY SNO DESC LIMIT 1")
data = cursor.fetchall()
n = len(data)
countries= []
for i in range(n):
    countries.append(data[i][3])
class WebTable:
   def init (self, webtable):
        self.table = webtable
    def column_data(self, column_number):
        col = self.table.find_elements_by_xpath("//tbody[1]/tr/td[" +
str(column_number) + "]")
        rData = []
        for webElement in col:
            rData.append(webElement.text)
        return rData
class Test(unittest.TestCase):
    def test web table(self):
        driver = webdriver.Chrome(executable path=r".\chromedriver.exe")
        driver.implicitly_wait(30)
        driver.get("https://www.worldometers.info/coronavirus/")
```

```
WebTable(driver.find element by_xpath('//table[@id="main_table_countries_today"]/tbod
y[1]'))
        country = w.column_data(2)
        n coun = country.count('')
        for i in range(n_coun):
            country.remove('')
        total cases = w.column data(3)
        n_total_cases = total_cases.count('')
        for i in range(n_total_cases):
            total cases.remove('')
        total_deaths = w.column_data(5)
        n_total_deaths = total_deaths.count('')
        for i in range(n_total_deaths):
            total deaths.remove('')
        total_recover = w.column_data(7)
        n_total_recover = total_recover.count('')
        for i in range(n_total_recover):
            total_recover.remove('')
        total active = w.column data(8)
        n total active = total active.count('')
        for i in range(n total active):
            total_active.remove('')
        for k in countries:
            index coun = country.index(k)
            # Variables:
            cases = total cases[index coun]
            deaths = total_deaths[index_coun]
            recovered = total_recover[index_coun]
            active = total_active[index_coun]
            print(cases, deaths, recovered, active)
            msg = f'''Subject: Coronavirus\n\n Hello {data[countries.index(k)][1]}!
            >>Country Name: {k}\n
            >>Total Cases: {cases}\n
            >>Total Deaths: {deaths}\n
            >>Total Recovered: {recovered}\n
            >>Active Cases: {active}\n\n\n
            >>Today's tip\n{Functions.getTip()}\n
            print(msg)
            Functions.mail(data[countries.index(k)][2], msg)
```

```
driver.close()

if __name__ == "__main__":
    unittest.main()
```

## **Some Output Emails**



Hello Himanshu! Here is today's status.

>>Country Name: India

>>Total Cases: 3,679,411

>>Total Deaths: 65,404

>>Total Recovered: 2,832,738

>>Active Cases: 781,269

>>Today's tip
Instruct maids not to touch main door. On entering
the home, she has to immediatly wash hands
thoroughly, before touching other things. After that,
wipe the calling-bell switch with a cleaning fluid:)

Want to opt out of this newsletter? Mail 'STOP' to us

Want to change your country? Mail 'CHANGE COUNTRY TO ---' to us

### Coronavirus Inbox ×





#### fighting.corona2021@gmail.com

Hello Anish! Here is today's status.

>>Country Name: Brazil

>>Total Cases: 3,862,311

>>Total Deaths: 120,896

>>Total Recovered: 3,031,559

>>Active Cases: 709,856

>>Today's tip

Wash hands frequently when in house or in office. Once every hour at least.

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## Acknowledgements

I would like to take this opportunity to express my deep sense of gratitude to all those people without whom this project could never have been completed. First and foremost, I would like to thank my parents for their inexhaustible source of inspiration.

I would like to extend my gratitude to Mr. Kunal Gupta, Principal, Bal Bhavan International School, Dwarka for his constant encouragement and moral support, without which I would have never been able to give in my best.

I would like to thank Ms. Reema Chaudhary, PGT Computer Science for her keen interest in the work, ever useful practical knowledge and her kind supervision.

Their guidance and supervision were very helpful in bringing this work to conclusion.

[Name]