NATCON

Natural Disaster Control

Team Members

TEAM 6

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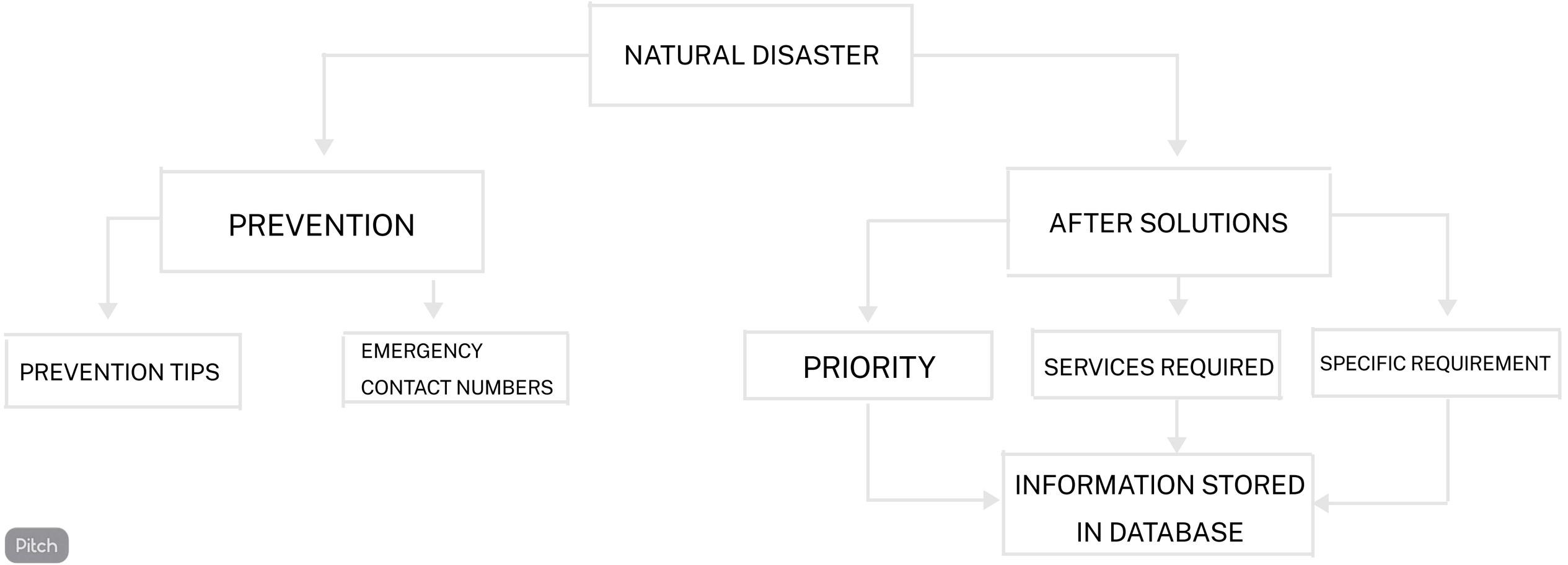
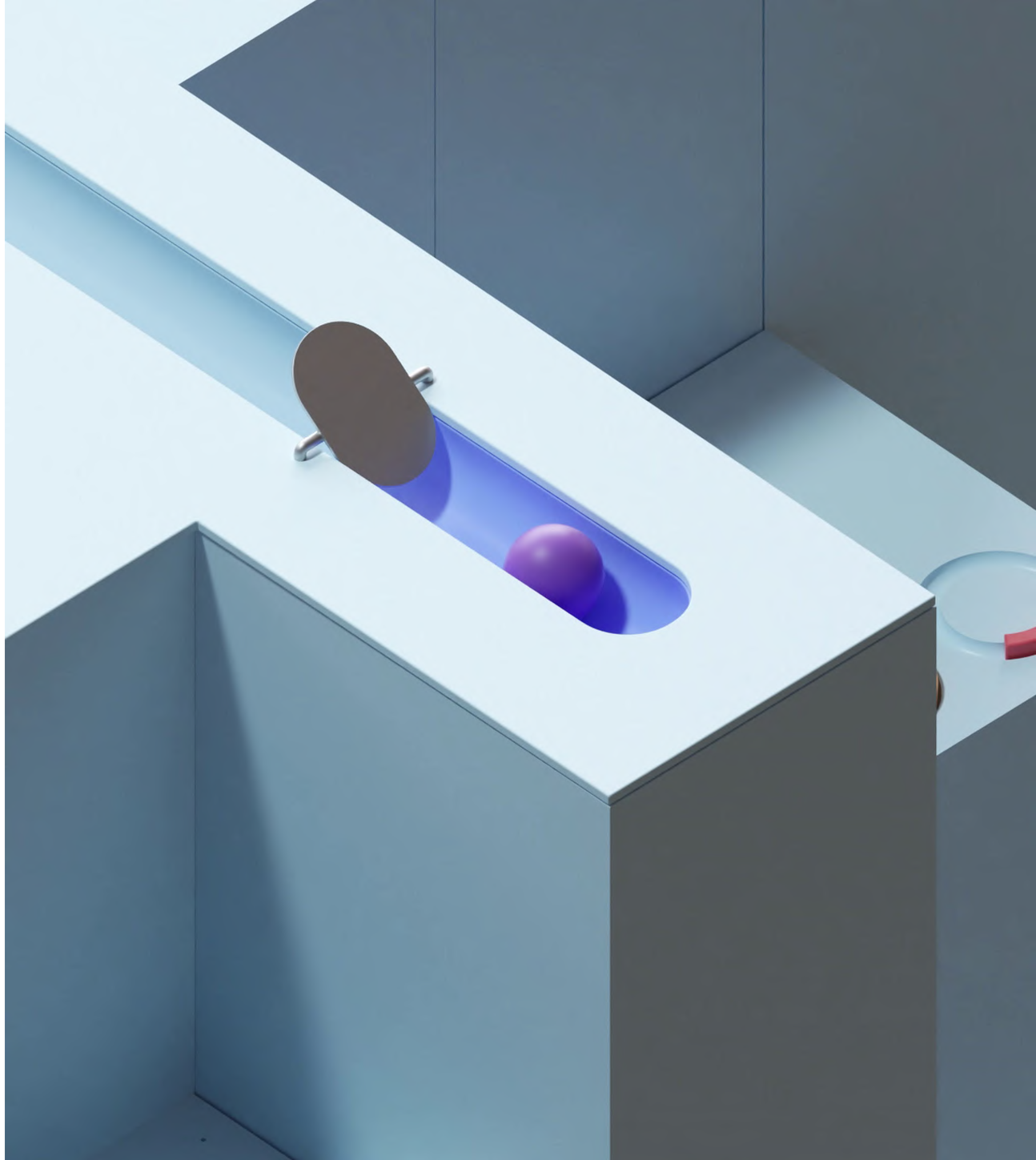
BackStory

This program provide help to the civilians who get stuck in the After Disaster conditions and also provides prevention tips to be safe at their places and provide the Helplines through which they can connect and can get the desired help.



Design Goals

This program get install through the softwares at the places which are facing disasters. This software is connected to the main functioning department with the fibre cables. And through this their data related to the disaster will reach the department from where they can provide aid to the civilians who are in the trouble



```python
from datetime import datetime
import csv
from importlib.util import spec_from_file_location

#----------------------Functions Section----------------------'''

#----------------------Database Fuctions----------------------#
def gettingData():
    f = open('DisasterRecords.csv', 'r')
    csvr = csv.reader(f)

    tempRow = []
    for row in csvr:
        tempRow.append(row)
    inp = input("want your data: ? (y/n)")
    if (inp == "y" or inp == "Y"):
        idStr = str(input("Enter id: "))
        c = 0
        for i in tempRow:
            if not i:
                continue

            if i[0] == idStr:
                for _ in i:
                    print(_, end=' ')
                print()
                c += 1
                break
        if c == 0:
            print("Cant find data, user not registered")
    f.close()


def settingData(name, city, state, priority, services, extraservice, specificReq):
    f = open('DisasterRecords.csv', 'a')
    inp = input("Want to register your data:? (y/n) ")
    csvw = csv.writer(f)
    if (inp == "y"):
        now = datetime.now()
        uniqueId = now.strftime("%d%m%Y%H%M%S")
        userArray = [uniqueId, name, city, state, priority, services, extraservice,
                     specificReq]  # priority(int),services(int),extraService(int),specificReq(str)
        csvw.writerow(userArray)
        print("registered")
        print("Please Keep Your Unique ID For Any Future Reference ",)
        print(uniqueId)
```

```python
extraservice = 0
specificReq = "NIL"

a = int(input('''Which Disaster Are You Facing
1) Flood
2) Drought
3) Earthquake
4) Cyclone
5) Tornado'''))
if a == 1:
    b = int(input(''' Select The Option
    1) Preventive Measures
    2) After Disaster Help'''))
    if b == 1:
        floodPrev()
        helpnom=input(" Do You Want a Helpline Number - y/n\t")
        if helpnom=="y" or helpnom=="Y":
            floodHelp()
    elif b == 2:
        afterDisaster()
if a == 2:
    c = int(input(''' Select The Option
    1) Preventive Measures
    2) After Disaster Help'''))
    if c == 1:
        droughtPrev()
        helpnom=input(" Do You Want a Helpline Number - y/n\t")
        if helpnom=="y" or helpnom=="Y":
            droughtHelp()
    elif c == 2:
        afterDisaster()
if a == 3:
    d = int(input(''' Select The Option
    1) Preventive Measures
    2) After Disaster Help'''))
    if d == 1:
        earthquakePrev()
        helpnom=input(" Do You Want a Helpline Number - y/n\t")
        if helpnom=="y" or helpnom=="Y":
            earthquakeHelp()
    elif d == 2:
        afterDisaster()
if a == 4:
    e = int(input(''' Select The Option
    1) Preventive Measures
    2) After Disaster Help'''))
```

How Does Our Code Run?

Our code uses the "datetime" and "csv" library of python database. We used datetime library to generate a uniqueID for every input the software gets. This uniqueID is written in this format day-date-year-hour-min-sec of the very particular moment the database is recorded. This helps the User as well as the database manager to get the information of a particular person in no time.

First the software asks for the Name -> City -> State. After this phase the software asks about the natural disaster they are facing. Then It asks the user to select if they want preventive measures or after disaster assistance. Here the program divides into two parts

1) Preventive measures- When the user selects this option he gets the preventive measures and tips to save themselves. After this the program asks if they want emergency contact number.

2) After Disaster Assistance - When the user selects this option they are first asked about the priority of their situation.(answered in 1- very high 2- moderately high 3- normal.) then they are asked about what services they need like (1. transportation 2. medicine 3. food and shelter), then they are asked for a secondary service along with the first one, if someone wants it. Then they are asked for a specific services if they need any i.e "please send a surgeon to operate on a injured person" this is stored as a string.

Here the program mergers into one and asks if they want to register their data. (Y= yes, N= no) after registering they get a confirmation message and their unique ID number. Then the programs ask if they want to see their data.(Y= yes, N= no). Then it shows them their entry, The getingData() function can also be used by the database manager to retrieve the data easily from the .CSV file.

Challenges And Wins Faced

We Faced A Lot OF Challenges During Our Coding Journey. It took a lot of time to write the code and to deal with the amout of errors was a nightmare for us.

"1. Problem"

The Major Problem we faced was error during the program. The function def gettingData(). There we encountered an error that it wasn't working as planed. It compared the uniqueID with an empty list. Finally after 4 hrs of debugging we were finally able to debug it

"2. Problem"

The Second Problem was, I forgot the things we read about file handeling. i had to study that entire chapter yesterday to figure out how to make the database part of our project. after 2 hrs of revision i was finally able to write the code

"3. Problem"

The Third Problem was , how to make our program efficient. After some research and brainstorming we got a solution that is to divide the program into two parts, first part deals with the people those who need to tips and emergency helpline numbers before disaster and others after disaster.

Future Implementations

A must Software for the disaster prone areas

Safe and secure connection so that disaster can't affect it

The proper safety measures must be their so that it can accessed during the disaster

✓ Increases Survival Rate By a Significant amount

✗ **A Bit Complicated And Monetary Support To Implement This Project On A Large Scale**

✓ Design Of Our Programs Works Very Efficiently And Effectively During Emergency Situations

Thank you