ACROPOLIS
Enlightening Wisdom

Acropolis Institute of Technology & Research, Indore

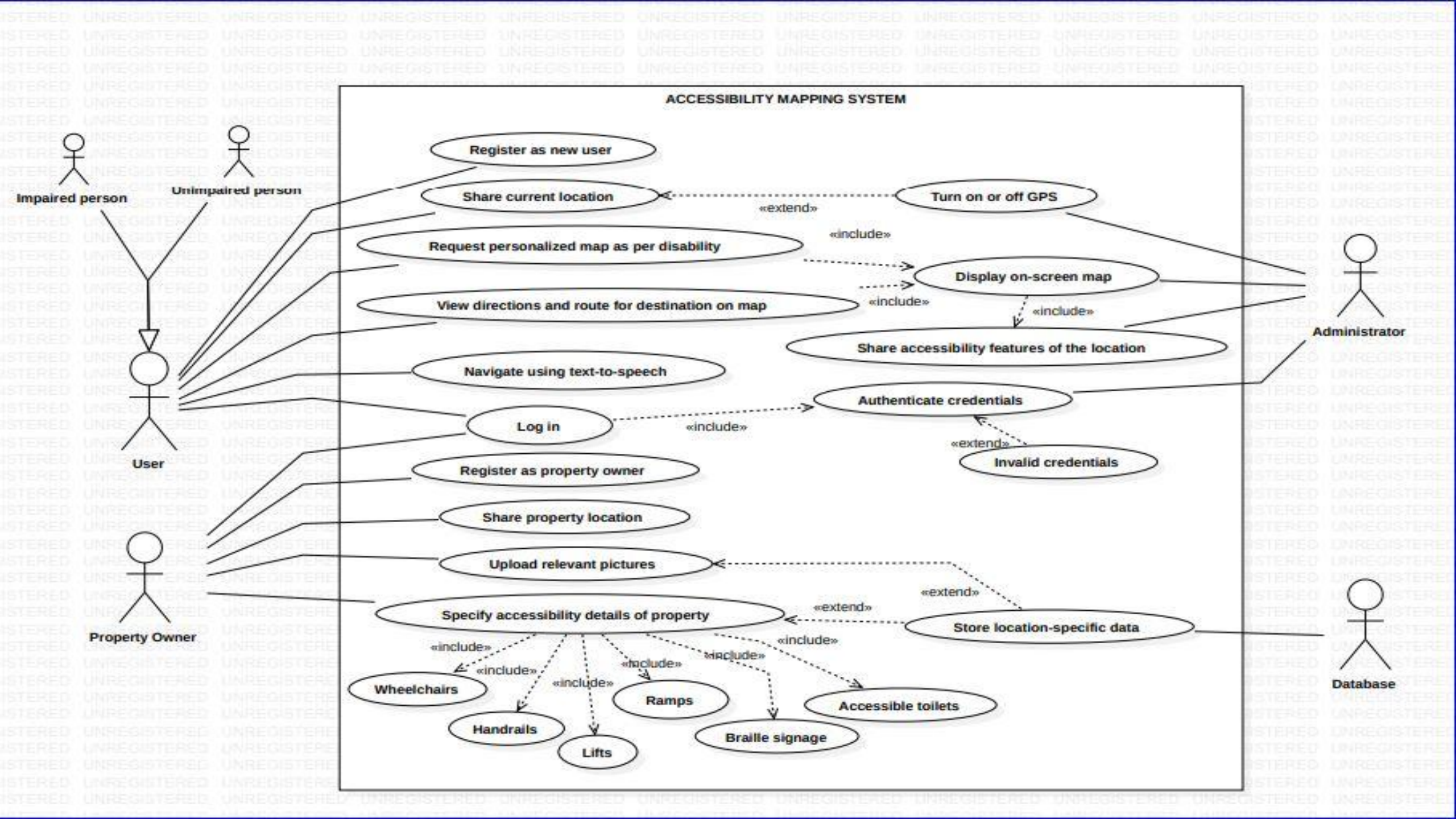# Smart Accessibility Map

Department of Computer Science and Engineering

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Introduction

In this project we created a website 'Smart Accessibility Map' for disables using Bing Maps API where disables can find the accessibility features of the place they want to visit. and get the direction for that place.

ACCESSIBILITY MAPPING SYSTEM

Impaired person

Unimpaired person

User

Property Owner

Administrator

Database

Register as new user

Share current location

Turn on or off GPS

«extend»

«include»

Request personalized map as per disability

Display on-screen map

«include»

View directions and route for destination on map

«include»

Share accessibility features of the location

Navigate using text-to-speech

Authenticate credentials

Log in

«include»

«extend»

Invalid credentials

Register as property owner

Share property location

Upload relevant pictures

«extend»

Specify accessibility details of property

«extend»

Store location-specific data

«include»

«include»

«include»

«include»

«include»

Wheelchairs

Handrails

Lifts

Ramps

Braille signage

Accessible toilets

Front End

Technology Stack

- ❖ HTML
- ❖ CSS
- ❖ Javascript
- ❖ Bootstrap
- ❖ Jinja2

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Special Maps

An Innovative Map For Special People.

Portfolio   Location   Route Details

Create Account

Sign Up with Social Media
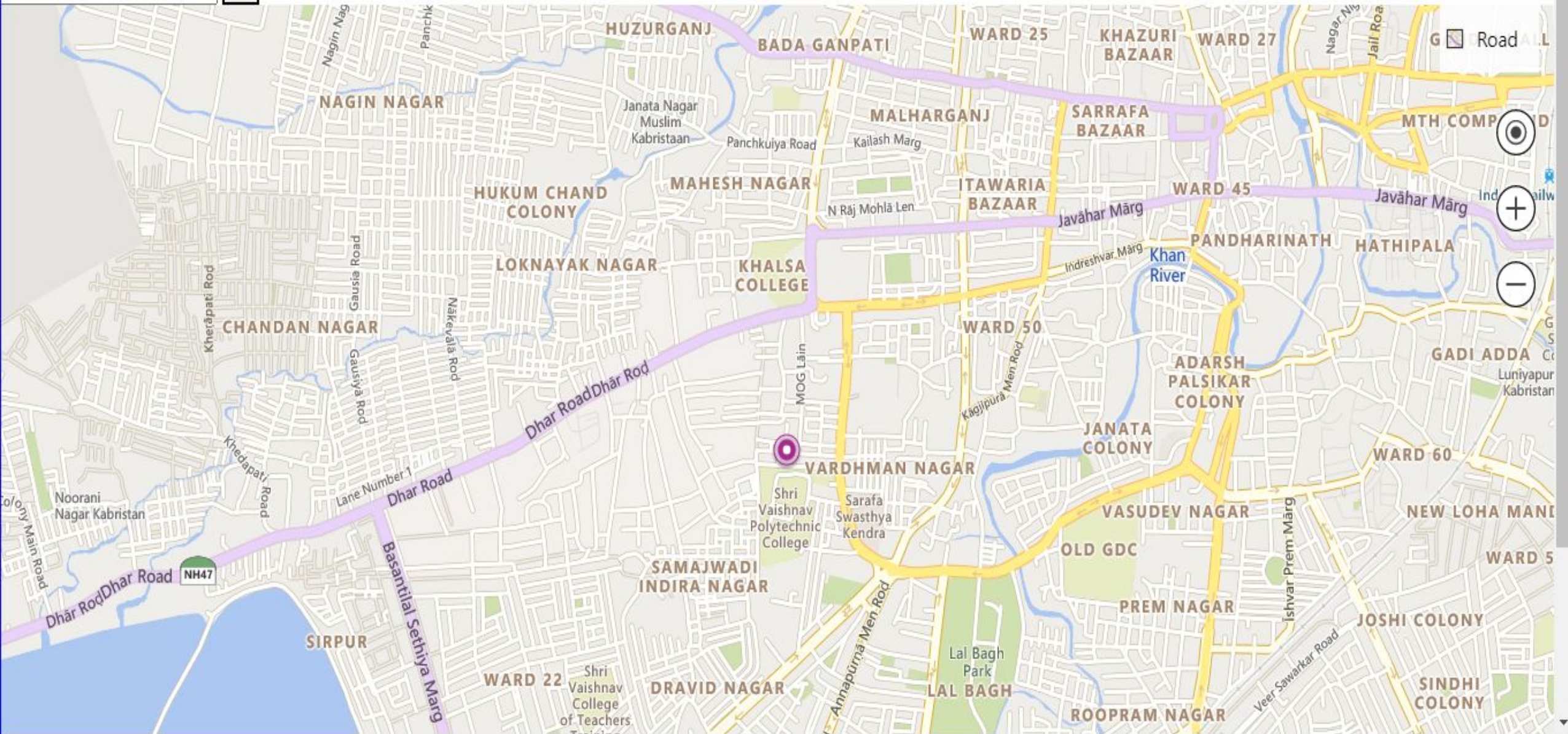
Or

Sign Up with Email Address

	Name

	Email

	Password

	Disability type

☐ I Agree with Term & Conditions.

SIGN UP

Bing Maps API

Bing Maps API is used for its various feature including but not limited to

❖ Geocoding

❖ Reverse Geocoding

❖ Routing

❖ Imagery Service

❖ And many more……

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gTTS

❖ gTTS(Google Text to speech),a Python library to interface with google translate text to speech API.

❖ It is used to provide the user speech searching capabilities as not all pws can see.

❖ Customizable text pre-processors which can, for example, provide pronunciation correction

❖ Pyaudio, Playsound, SpeechRecognition module is also used to convert written text to audio and convert the user's command into text.

Text to Speech with Python

Back End

❖ The resources we've used for our back end are as follows:-

❖ Flask -**Flask** is a micro web framework written in Python. It is classified as a microframework because it does not require particular tools or libraries

❖ Postgresql - PostgreSQL is used **as the primary data store or data warehouse for many web, mobile, geospatial, and analytics applications**

❖ Json - Javascript is standard file object used to interchange data. The data objects are stored and transmitted using key - value pairs and array data types. In simple terms JSON data is the language of database.

❖ Werkzeug - Werkzeug is a collection of libraries that can be used to create a WSGI (Web Server Gateway Interface) compatible web application in Python.

Acknowledgement

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THANKS

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