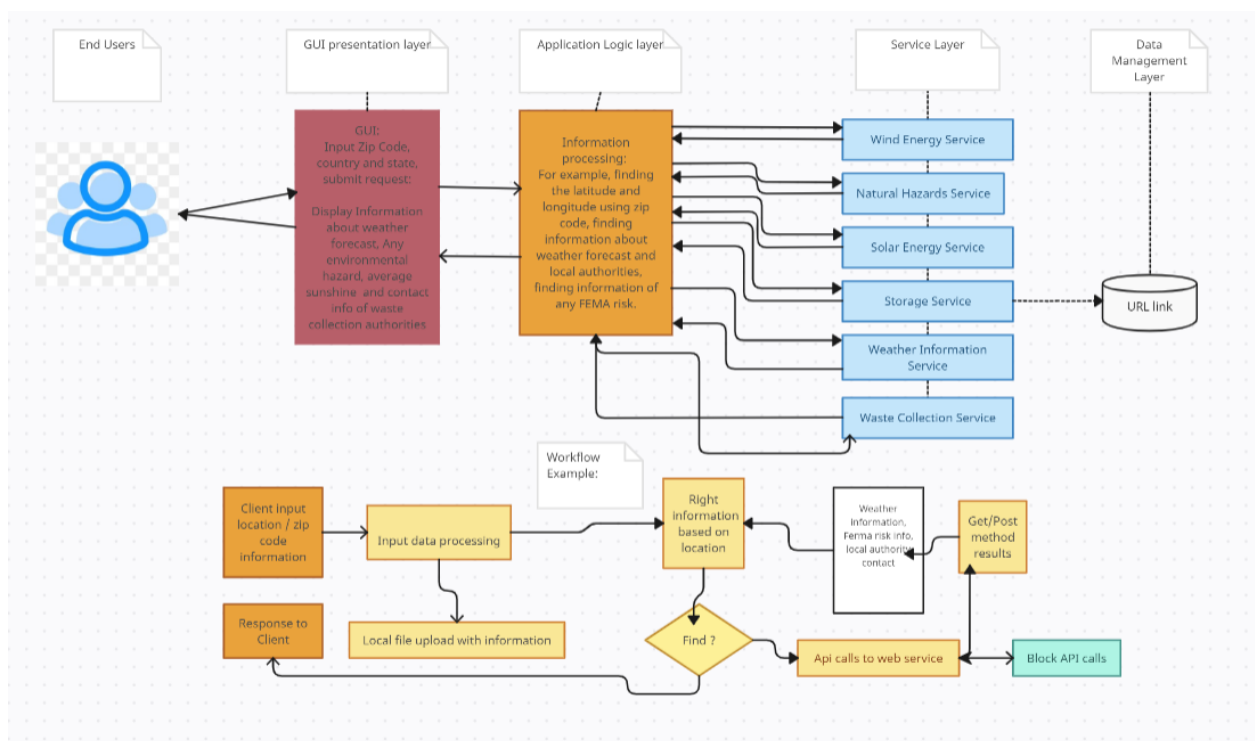


1.1

Our designed system is an Environmental Information System that is designed to gather, process, and disseminate environmental data. It acts as a hub for a wide range of information including wind and solar energy, information about natural hazards, a weather forecast for the next 5 days, and local waste management information. It also has an unrelated file upload storage service integrated within. This system can be used as a tool for monitoring, analyzing, and managing environmental conditions enabling the end users to have better resource use, mitigate risks, and sustainable practices.

1.2



1.3

	Service Directory: The team plans to complete the following services. Changes can be made later in the final project (Project 5). Team Number: 76					
Provider Name	Service name, with input and output types	Required service?	Difficulty level self-estimate	Tryit Link*	Service Description	Planned resources to implement the service
Ricky Das	WindEnergy Service Input: doubles longitude and latitude Output: double	Yes	Moderate	https://localhost:44350/	Outputs the average wind speed of a coordinate location based on 2022 daily averages	Retrieve all of 2022 wind information using Visual Crossing's Weather API and calculating the average in my own service
Ricky Das	NaturalHazardService Input: strings county and state Output: string	Yes	Moderate	https://localhost:44352/	Outputs the FEMA risk information of a given US county	The FEMA National Risk Index County svc stored with the service, and my own WCF that grabs information from that svc file
Shane McNeese	Solar Energy Service Input: latitude and longitude (doubles) Output: avg direct normal	Yes	Moderate	https://localhost:44369/	Takes the coordinates of a location and returns the average DNI at that location.	Retrieve information from database at: https://developer.nrel.gov/docs/solar

	rradiance (double)					/solar-resouce-v1/
Shane McNeese	Storage Service Input: a file name with local path Output: A URL (string)	Yes	Moderate	https://localhost:44369/	Loads a local file and uploads it to the localhost location. It returns a URL to that location.	Create and verify a destination path. Code error handling (same names, invalid type, ect.)
Burhan Barafwala	Weather information: input : zip code Output: weather report forecast for next 5 days	Yes	Hard	N/A Project 3	It will display information about weather such as Temperature and precipitation	Uses Api from weather.gov to get information about forecast
Burhan Barafwala	Waste collection services: Input: zip code Output: contact info of local authorities to provide services for waste management	No	moderate	N/A Project 3	It will give information about local authorities to connect for managing waste	Uses Api calls to get information and then we use zip code to match location information .