UV Index Data Range Chart

Project Analysis/Design

Southern Skin Cancer Treatment of America
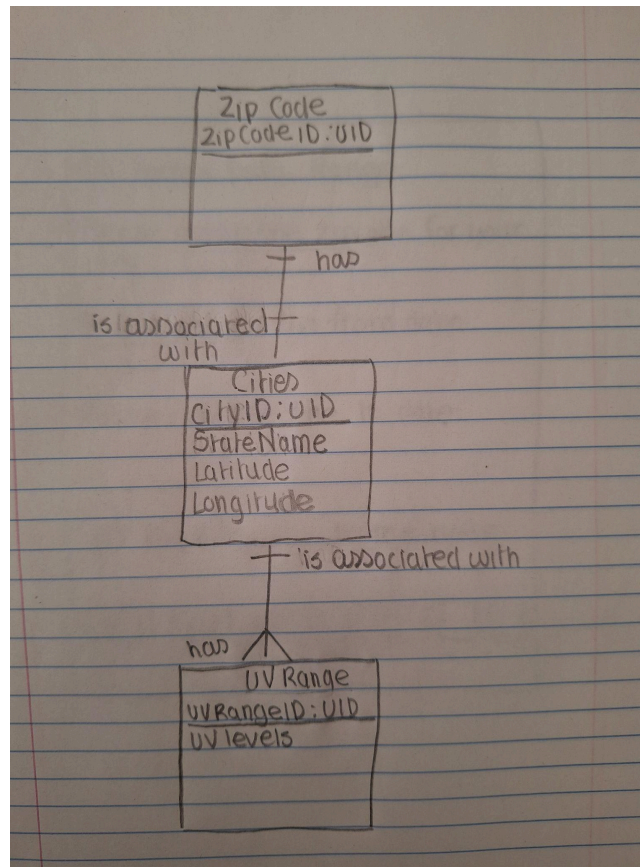
123 Road

Dallas, Texas

Proposed Project Format:

To have the patients of Southern Skin Cancer Treatment of America view specific UV index values in an hourly basis, a proposed solution was stated by the client to have the values of the UV index chart remain displayed within a chart format. An additional requirement was given by the client to use API information from the OpenMeteo website.

Proposed Solution Format:

The following project will include multiple user based components. These user based components will help the system to generate the chart output according to the user specifications. Entries of user components include date inputs and zip code input. The structure and the elements of the work will be completed within a single webpage.

An image of an ER diagram is listed to showcase the relationship that each component has with each other.

ER Model

Zip Code
Zip Code ID : UID

— has

is associated
with

Cities
CityID : UID
StateName
Latitude
Longitude

— is associated with

has
UV Range
UVRangeID : UID
UV levels

Component Functionality:

Each user entered component will be examined to ensure that it can be passed as an accurate input to retrieve data. The zip code component will be scanned to make sure that it isn't longer than a 5 digit number and that the user input is not processed as a string.

The zip code functionality will bring back up to 3 results. The user will have an option to choose which specific city they would like to see the UV levels for.

After all the parameters have been passed, the system will generate a chart based on the user's data. If the system cannot generate a chart due to API call issues or issues with the amount of calls requested the system will issue an error message stating that the system cannot generate the following information.

System Layout

The user interface layout will look like the following image: