CS411 Team Assignment 4: Database Documentation & Cache

Data Documentation: ~~sqlite~~ sqlite

We are going to use ~~MongoDB~~ as our database New:

Commented JSON Schema:

```
{
    "_id": "id number",
    "created_at": "date time",
    "crisis_alertLevel": "color",
    "crisis_population": " number ",
    "crisis_relatedGDACSResources": [
    {
    "dc_title": "description title",
    "dc_type": "description type",
    "rdf_resource": "reference webpage"
    },
    ],
    "crisis_severity": "number",
    "crisis_vulnerability": "number",
    "dc_description": "description",
    "dc_subject": [
            "type",
            # earthquakes, floods, cyclones, volcanoes
    ],
    "gn_parentCountry": [
            "country"
    ],
    "rdfs_seeAlso": "web page",
    "updated_at": "date time"
}
```

~~We will use "_id", "crisis_alertLevel", "dc_subject", "gn_parentCountry" as keys~~

"earthquakes"
...

"Cyclones"
...

Search
"floods"
"earthquakes"
"Cyclones"
"Volcanoes"

"Volcanoes"
...

"floods" (JSON)
{ "title": ...
  "description": ...
  "Type": "floods"
  "Country": ...
  "Alert Level": ...
}
{
  ...
}

Cache (plan):

In the database (~~mongoDB~~) sqlite

Store API calls temporarily in cache according to their "~~_id~~" type

Refresh the cache ~~every two days~~

every day

Sequence Diagram:

Search term typed in by users

Search in cache if there is anything stored before with the same search term

If nothing in the cache matches, send a request with the search term to Sigimera API

Sigimera API

Users select the natural disasters that they are interested, by clicking on the content of the specific disaster, a request is sent to ReliefWeb API to give users the info ~~on how to donate to the people affected~~ *reports jobs, trainings*

ReliefWeb API

Cache

Store the results returned by the API in cache

type
"_id": ...
search key: ...
other contents: ...

Store the results returned by API in database

Toodle API (To-Do list)
~~Amazon API~~

~~Send users to Amazon to place orders on aid packages~~

Add job/training applications to their Toodle To-Do list

~~MongoDB~~

Sqlite