MOM (MINUTES OF MEETING)

Date: 12TH February 2026 – 12:30 PM to 1:00 PM

Attendees

Haripriya Varanasi - Scrum Master
Siva Mani Subrahmanya Hari Vamsi Pullipudi - Product Owner
Rishika Baddam - Development
Vaibhav Hasu- Development
Aryan Patel Kolagani - Development
Sujith Sriram Nangunoori – Development

William Martinez – Client
Gilberto Guevara Velázquez - Client
Lin Wells - Client

Notes:

1) Agenda

- Review newly updated GitHub repo and foundational notebooks
- Walkthrough of new **US Census risk features notebook** and how to use it
- Discuss how indices are built and validated (historical/field/simulation)
- Confirm collaboration process (GitHub issues/PRs, API key handling)
- Address missing files reported by team
- Confirm next steps and meeting time

2) Key updates shared by client

- Client moved collaboration from shared drive to **GitHub** to enable PRs, issues, and version tracking.
- Repo contains multiple **foundational Jupyter notebooks** that are "time-proven" and already working.
- New notebook added: **US Census risk features**
    - Pulls latest Census data (2024) across Puerto Rico
    - Includes a translation/geomapping approach to map zip/town names to coordinates
    - No API key required for Census API
- Client emphasized the goal is not just "getting data," but understanding:
    - **what factors are chosen**,
    - **why they matter**, and
    - how peers can **replicate and critique** the logic.

3) Client expectations

- **Run notebooks one cell at a time** initially to understand the author's logic (avoid "Run All" early).
- Use notebooks as peer-reviewable artifacts: combine **markdown + code + explanations**.
- Treat the current notebooks as **primitives/foundations**:
    - Each notebook produces outputs (CSV/GeoJSON)
    - Next step is a higher-level notebook that **combines outputs into multi-vector indices**
- The team should **challenge assumptions** and improve:
    - missing factors
    - weighting choices
    - normalization (min-max, inverse transforms)
    - definitions (e.g., whether zip code is useful vs population)
- Consider seasonality: flood risk patterns change by time of year.

4) Technical notes discussed

- Census notebook variables used included examples like:
    - population, income, poverty, housing units, occupancy/vacancy, households without vehicles (examples of vulnerability factors).
- Risk index shown in the Census notebook is **one vector** only (population vulnerability).

  Other vectors come from other notebooks, e.g.:
    - NWS alerts/forecast (event likelihood/impact area)
    - Water/soil metrics such as "bed of water" (soil saturation / water table depth)
- Client showed a folder structure concept in VS Code to represent diverse inputs:
    - **HUMINT** (field reports/community observations)
    - **IMINT** (imagery/satellite)
    - **MASINT** (sensor/measurement data)
    - **OSINT** (news/blogs/public sources)

5) Team updates shared during the call

- GMU official GitHub space is being created; professor will share soon.
- **YouTrack** will be used for PM; accounts set up; high-level tasks will be created.
- Team will share **MOMs after each meeting** for alignment.

6) Issues / blockers raised

Team reported **missing files** in repo/notebook dependencies, including:

- "USGS daily water schema definitions …" (as named by team)
- "Puerto Rico Geopoda Reference"
- another referenced file (as noted in chat)

Client response:

- Requested the team to log issues in **GitHub Issues**
- Acknowledged oversight and committed to **fixing missing items by this afternoon**

7) API keys and security reminders

- NOAA datasets may require individual API keys (team confirmed keys have been generated).
- Client warned to **never commit API keys** to GitHub:
  - use .gitignore / .env
- Client asked team to be careful with API request rates to avoid being flagged.

8) Decisions made

- **Meeting time change is permanent:** continuing at **12:30 PM ET**.
- Collaboration will happen via **GitHub**:
  - Missing files/bugs → GitHub Issues
  - Improvements → Pull Requests with peer review

9) Action items

Client (William)

- Fix and upload missing files / dependencies in repo (same day).
- Continue updating notebooks and documentation for readability and peer review.

Team

- Clone repo and run all foundational notebooks carefully (cell-by-cell first pass).
- Log missing files/errors as **GitHub Issues** with exact filenames and where referenced.
- Start proposing improvements:
  - add missing factors (new vectors)
  - refine risk-index logic/weights/normalization with justification
  - PRs for documentation clarity and reproducibility
- Send this week's progress **PowerPoint** to William; receive feedback by email (per Dr. Gang).

Dr. Gang

- Coordinate progress communication; support the team's early sprint focus on understanding and running the scripts.

10) Next meeting

- Next sync at **12:30 PM ET** (Zoom)
- Planned focus:
    - Confirm notebooks run cleanly after repo fixes
    - Begin defining combined indices (vulnerability × hazard/event × soil/water metrics)
    - Discuss validation approach (historical/field/simulation)