CONTRACT FOR PROJECT GROUP 10

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1. **Communication:** What's the primary way of contacting each other remotely (text, email, etc.)?

   Communication will be done via Email, WhatsApp, and Phone call.

2. **Response time:** How quickly do you expect group members to respond?

   Response time should be a maximum of two hours.

3. **Meetings:** Which day and what place works best for everyone? If there is not a day or place, how do you decide when and where to meet?

   A. Meeting time: at least once a week, after class on Thursday.
   B. Mode of communication: Mostly WhatsApp, and phone calls.
   C. Meeting place: on campus.

4. **Division of Labour**: How will you ensure cooperation and equal/fair distribution of tasks?

   Team lead to delegate based on the strength of each member and ensure compliance.

5. **Accountability:** What are the team expectations regarding attendance, punctuality, participation, preparedness, task completion, deadlines, communication with the team, commitment, etc.?

   The team is going to follow the group contract and course requirements.

6. **Decision-Making:** How will you vote on key decisions (consensus, majority, secret vote, etc.)?

   We will decide by majority decision.

7. **Conflict Resolution**: What happens when team members violate one or more terms of the contract, or their work doesn't meet the team expectations?

   Conflicts will be resolved amicably maturely and responsibly.

Hydrological Modelling for extensive Streamflow Forecasting

Libraries: hydro tools, NumPy, pandas, matplotlib.
Main Features: Simulate water catchments, rainfall-runoff models, and flood risk analysis.
Data source: Open source

Summary:

A hydrological modeling Python project aims to forecast extreme flow events in a specific area. Water catchment simulation, rainfall-runoff models, and flood risk analysis are the key features. Simulating the flow of water across watersheds and river systems, data on rainfall, streamflow data, and other environmental parameters will be analyzed. For the preprocessing, hydro tools, NumPy, pandas, matplotlib, and Geo pandas' libraries will be used, and the dataset will be open source.
To further enhance forecasts based on past data, machine learning models will be developed. The outcome of this project will help to ensure that future flooding events are dealt with more effectively to get ready for potential mitigation plans.