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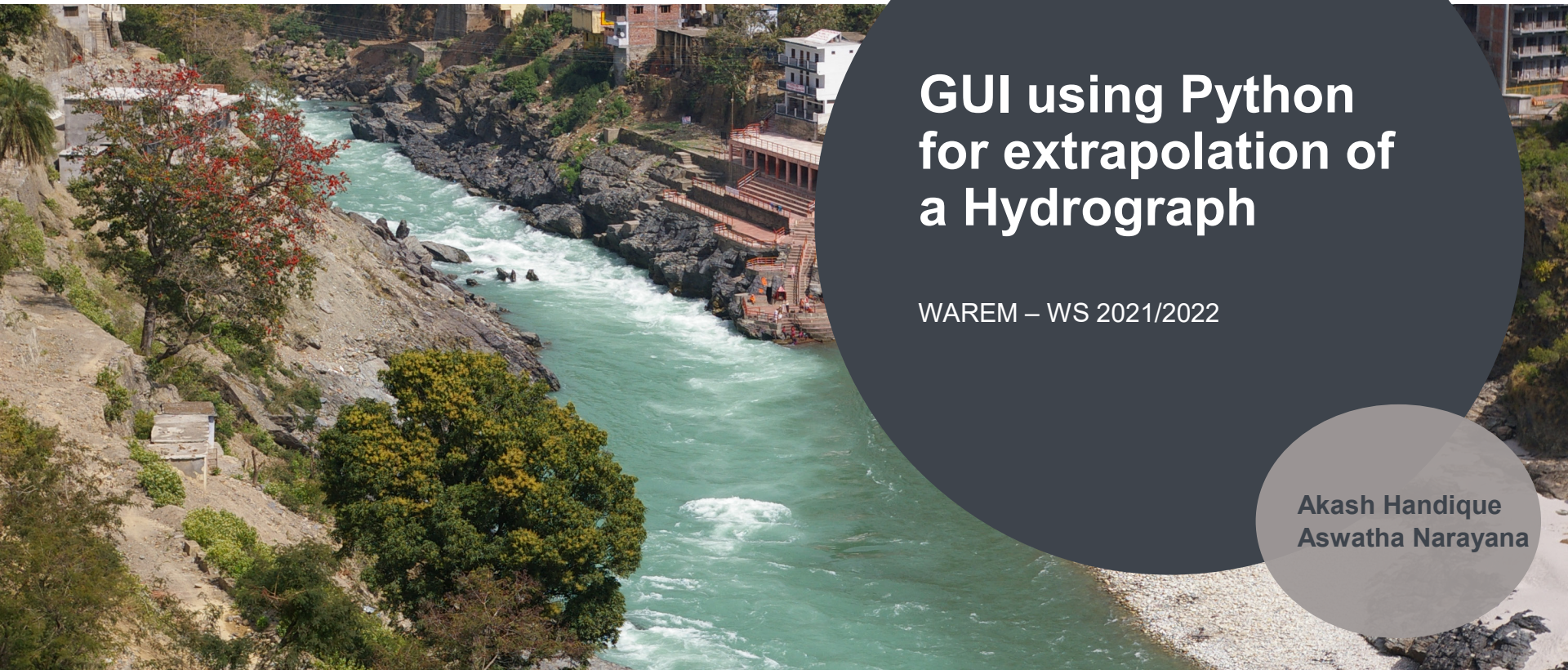

# GUI using Python for extrapolation of a Hydrograph

WAREM – WS 2021/2022

Akash Handique
Aswatha Narayana

GUI using Python for extrapolation of a Hydrograph

# Introduction to the Project idea

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Retrieval of Discharge data from Gauging stations (e.g., from Germany)

Sorting and Analyzing the data in hand and plotting the Hydrograph

To extrapolate return periods beyond the length of the observation period using Gumbel distributed-extrapolation as the prediction model

Extrapolating for flood events such as 50-, 100-, 200-, 500-, and 1000-year floods

Designing a GUI for the prediction model to display the results

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# Problem Statements

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Implementation of the prediction model (Gumbel distribution)

Reusability of Classes, Functions

Integration of main, and standalone script with GUI

Concise Structure and simplicity of the code

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# Goal of the Program to be developed

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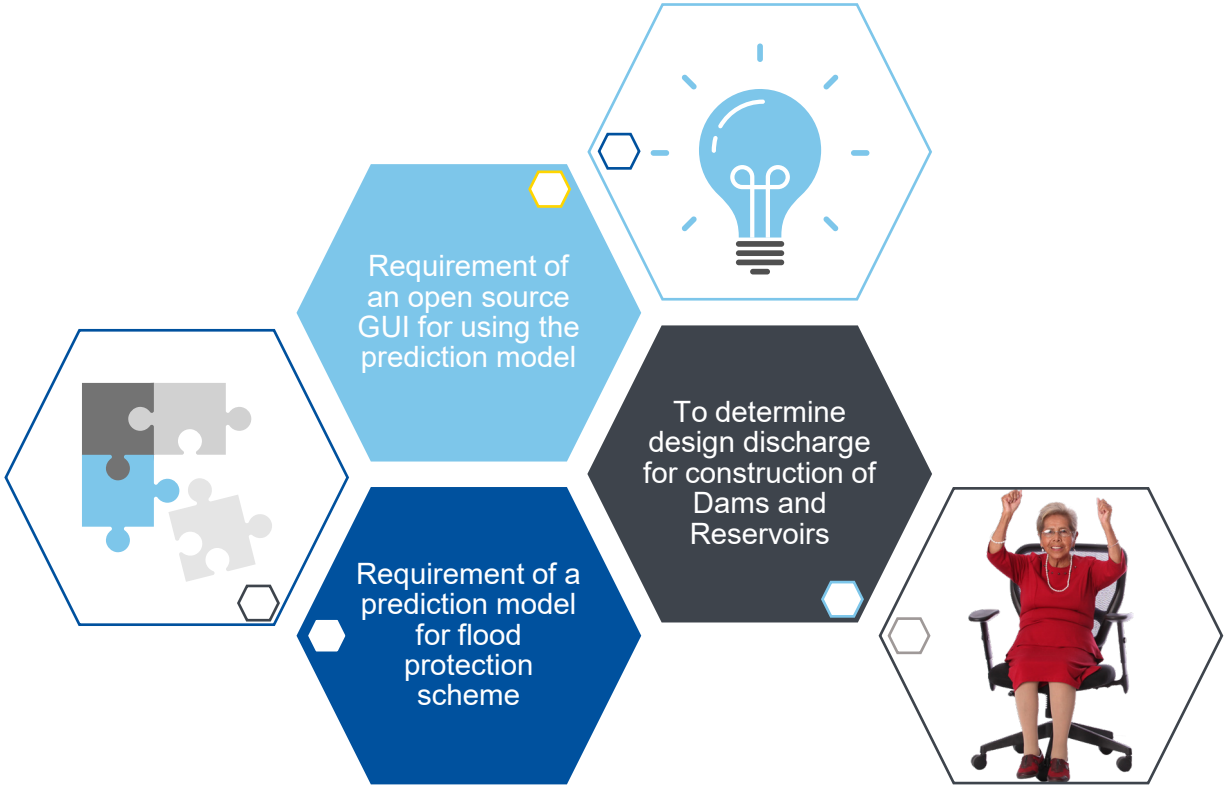

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# Timeline for developing the Program

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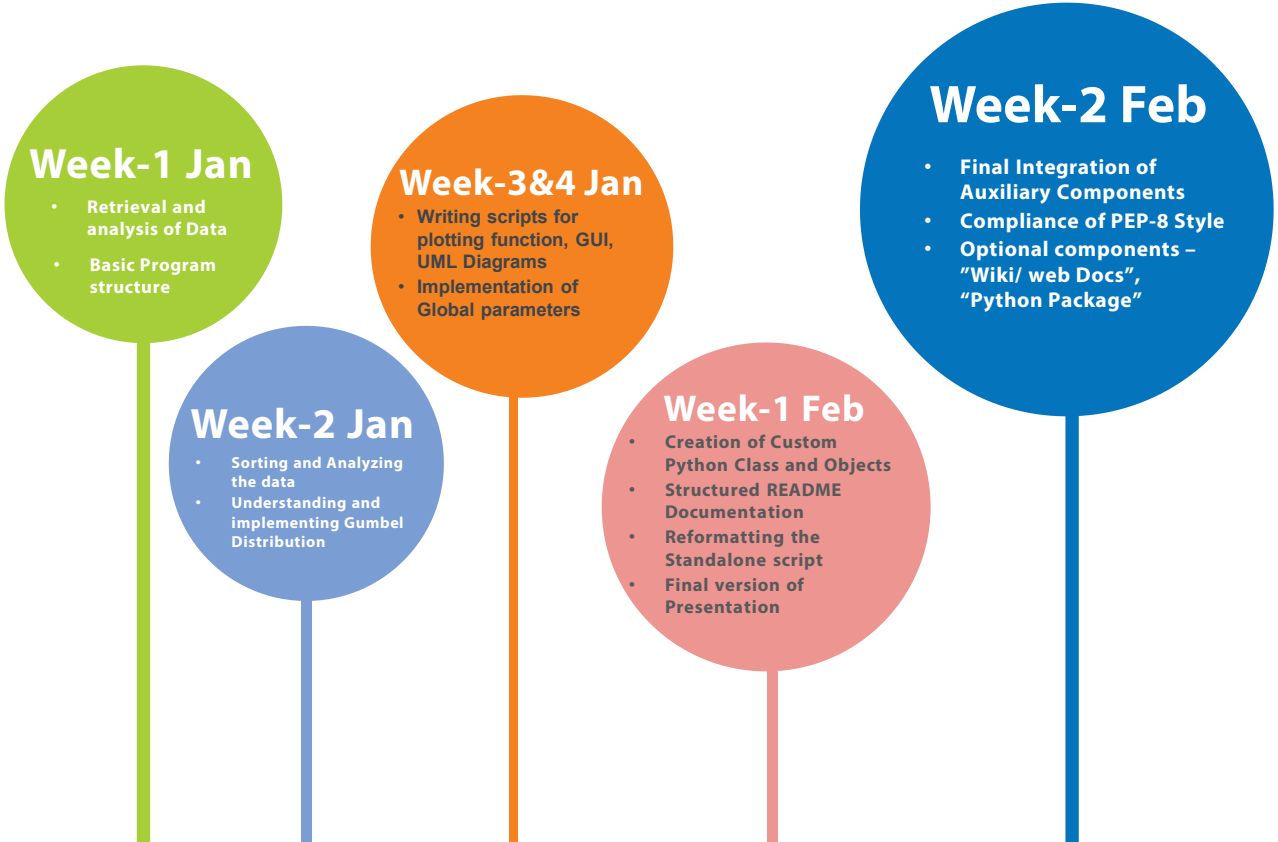

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# Resource Allocation

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## Aswath

- Structure of GUI
- Structure and PEP-8 Styling
- Customs Class
- README Wiki/ web Docs

## Akash

- Functions (Plot, Data Handling)
- Gumbel Distribution
- GUI implementation

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# Thank you!