

# Module 61-12: Option GIS-Python

Project Description

hes.  
SO  
business.

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Bachelor of Science HES-SO (BSc) in Business  
Information Technology



# > GIS/Python: Project



- **Goal: Develop a Web and GIS application to manage a ski resort**

## Requirements:

- **Groups of max 3 students**
- **Ski resort site of your choice**
- **Deadline: 19.06.2024**
- **Evaluation: Project report + Presentation**

# > Technical details

## 1. Data modelling:

- Select the ski resort site
- Model and create the ski resort site database (geometry and attributes).
- Model will have to be flexible enough to consider future services without its structure being called into question.

## 2. Propose a complete system as a Web application:

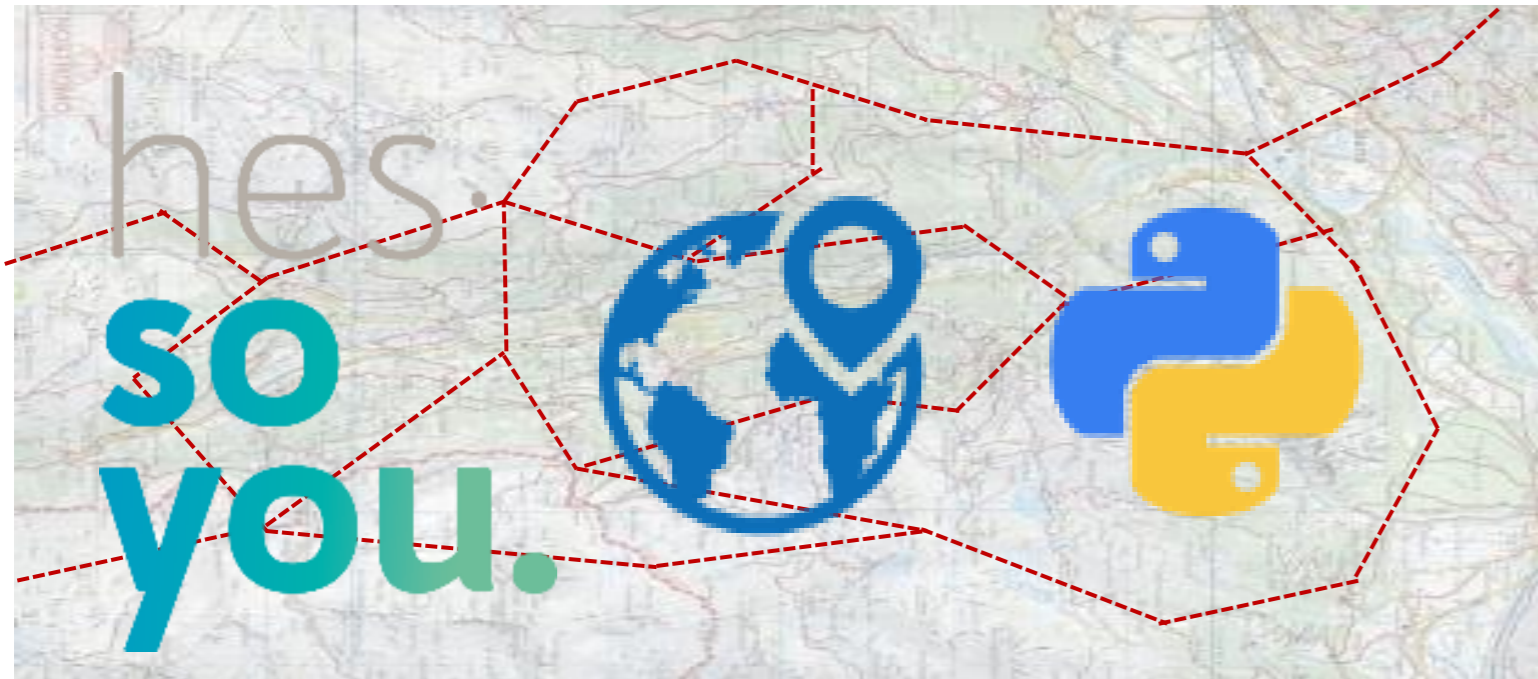
- Database using PostGIS
- Develop a backend (we suggest Python GeoDjango)
- Develop the frontend (for example using Django Views and Leaflet)
- Implement ski resort services, examples:
  - transportation services
  - exploit/view the selected information in a dynamic map box
  - ski resort services (calculate routes, parking, access to amenities, etc.) using spatial operations.

## 3. Usage of additional data sources:

- e.g., geographic data about weather, public transportation, etc. to enrich the service offer.

## > Evaluation

- The evaluation will take the form of a report of few pages (10 max) and a presentation in groups (20 minutes presentation and 10 minutes questions).
- Method of evaluation
- Item 1 (40% of the score)
- Item 2 (60% of the score)
- Item 3 (bonus + 0.5 pt on the final score)



Thank you for your attention.

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