
COURSE PROJECT

OBSERVATIONS FROM PLACES & THEIR NAMES

WEEK 2 – TIMELINE & SCHEDULING

GROUP 1



LÉONARDO
DE VINCI

PREFERENCE

Jingtao Zhou

GUI design / User experience design
Theoretical research on machine learning models
Frontend programming

Huanyu Zhang

Project management & leadership
Timeline & group meeting scheduling
Presentation design

Chunyang Liu

Database programming
Backend API programming
Architecture & Software engineering practices

Huimin Wang

Linux operation & maintenance
Visualization
CI & application deployment

GROUP 1






**LÉONARDO
DE VINCI**

I. Initialization Step

Tasks

1. Study the problem context by choosing the data you want to mine.
2. Elaborate the Use-case diagram and detailed description of the most important cases.
3. Define the global architecture of the Project.

Timeline & Work Repartition

Task ID	Collaborators	Estimated Schedule	Status
I-1	All members	Apr 29 – May 01	
I-2	Chunyang, Huanyu, Huimin	Apr 29 – May 06	
I-3	Jingtao	May 01 – May 03	

II. Elaboration step

Given Tasks

1. Detailed architecture of the Project by describing all the functionalities and the employed languages.
2. Scraping and collect the data.
3. Data cleaning and transformation.
4. Analysis of the dataset.
 - a. Analysis of the GeoNames dataset.
 - b. Analysis of the GeoNames [JOIN](#) GapMinder Countries dataset.

Additional Tasks

5. Graphical user interface (GUI) prototyping & design.
6. API documents drafting.
7. GUI Frontend implementation (Static).

Timeline & Work Repartition

Task ID	Collaborators	Estimated Schedule	Status
II-1	Huanyu, Chunyang	May 06 – May 07	
II-2	All members	May 07	
II-3	All members	May 07 – May 09	
II-4a	Jingtao	May 09 – May 14	
II-4b	Huanyu, Chunyang, Huimin	May 09 – May 14	
II-5	Jingtao	May 06 – May 10	
II-6	Huanyu, Chunyang	May 10 – May 14	
II-7	Jingtao	May 10 – May 15	

III. Construction step

Given Tasks

- 1. Integration of all the cases defined in the elaboration step.
- 2. Machine Learning.
 - a. Clustering.
 - b. Classification Model Training.
 - c. Regression Model Training.
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Additional Tasks

- 5. Model & parameters optimization (If applicable).

Timeline & Work Repartition

Task ID	Collaborators	Estimated Schedule	Status
III-1	-	-	⚠
III-2a	Huimin	May 13 – May 19	
III-2b	Huanyu	May 13 – May 19	
III-2c	Chunyang	May 13 – May 19	
III-3	Jingtao	May 15 – May 20	
III-4a	Huanyu, Chunyang	May 20 – May 24	
III-4b	All members	May 24 – May 27	
III-4c	Jingtao	May 24 – May 27	
III-5	All members	May 20 – May 25	

IV. Deployment and Reporting

Given Tasks

1. Deploy the project if possible in the defined environment
2. Prepare a detailed report
3. Presentation

Additional Tasks

4. Continuous integration (CI) deployment

Timeline & Work Repartition

Task ID	Collaborators	Estimated Schedule	Status
IIII-1	Huimin	May 27 - May 29	
IIII-2	All members	May 29 - June 14	
IIII-3	All members	May 29 - June 05	
IIII-4	Huimin	May 29 - June 04	

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IV. Deployment and Reporting

Given Tasks

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Additional Tasks

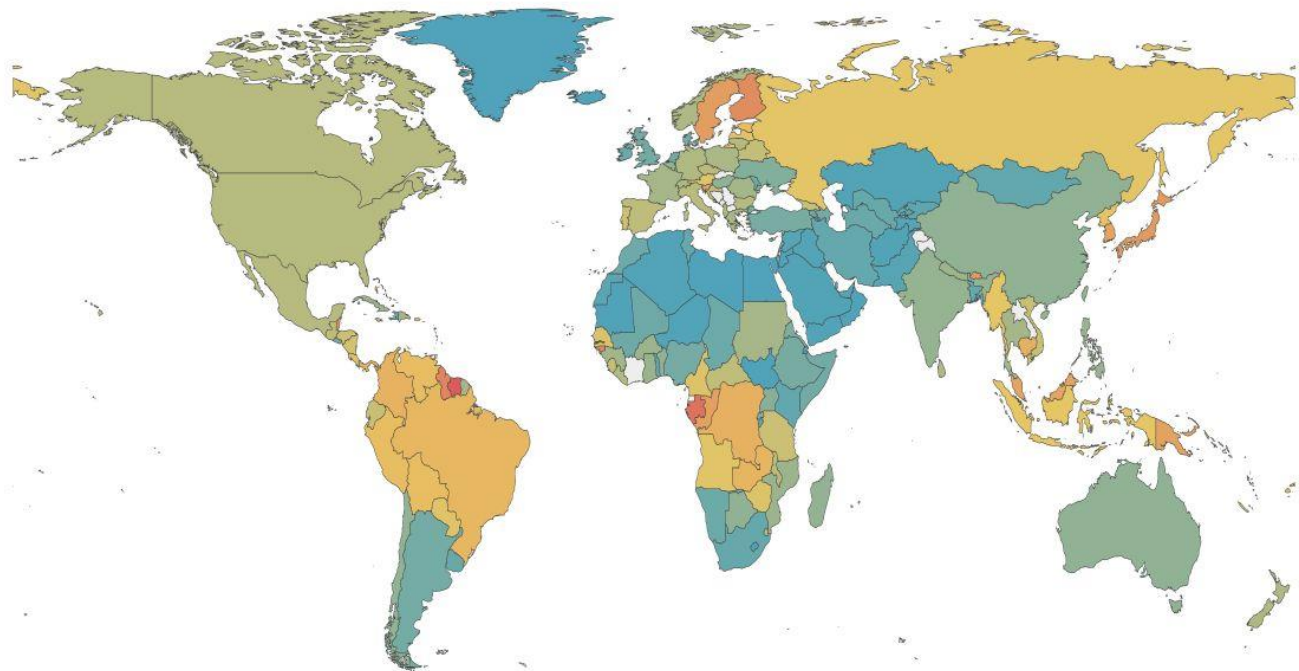
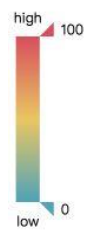
4. Continuous integration (CI) deployment

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2005年各国植被覆盖率

世界地图



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Backend (API) Programming



Flask

web development,
one drop at a time

At the last , we will create a web application to show our results. So it's important for us to Realize the Logical Part with Backend.

When the Frontend calling interface the Backend will return the corresponding json datas. Of course, we will also write the corresponding JSON documents for Frontend Developer Reference.

For more convenient development, we will use a Lightweight web development framework which named Flask. It's a convenient framework for python

Database Programming



When we are writing Backend code, data processing is indispensable.

So we need a database to receive the data from the Frontend and store them. We also need to use databases to process training-related data.

What we use is Mysql

We can use SQL statements to process data in the database.

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THANKS FOR YOUR TIME

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