

# Project I presentation

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DEPARTAMENTO DE  
ESTADÍSTICA E INV.  
OPERAT. APLICADAS  
Y CALIDAD



ets**inf**

UPV



# Domain

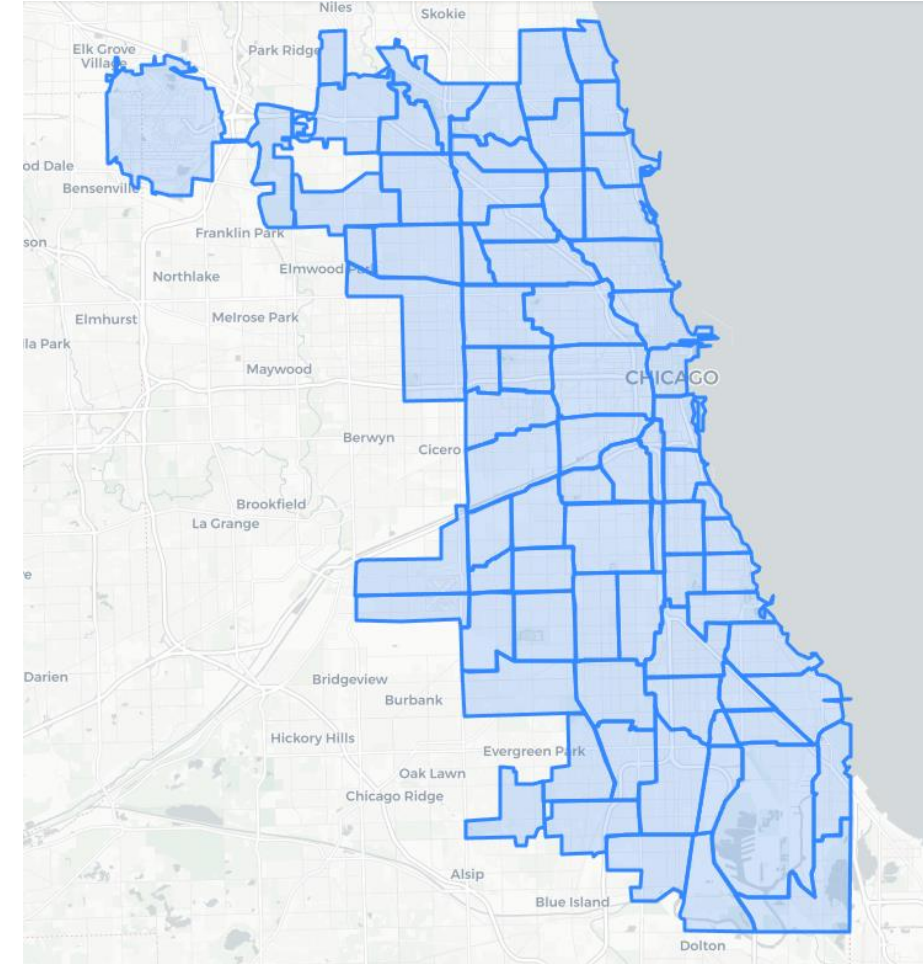
Project I presentation

## CHICAGO POLICE DEPARTMENT



- Reorganize the work of the Chicago Police Department according to objective criteria
- 77 community areas
- 23 Police stations and 23 districting areas
- 5 Police areas

as long as we're reasonable in what objective function we define it will be fine





# Available data

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Attribute	Description	Domain
<i>station_name</i>	Name and address of the station	String
<i>community_area</i>	Name of the Community Area where the station is located	String
<i>longitude</i>	Length of the station's coordinate	Float
<i>latitude</i>	Latitude of the station coordinate	Float

Police stations

Attribute	Description	Domain
<i>ID</i>	Numerical identifier of the community area	Integer
<i>community_area</i>	Name of the community area	String
<i>population</i>	Inhabitants of the area	Integer
<i>area</i>	Area surface in squared km	Float
<i>neighbours</i>	List of community areas with which it delimits	List

Community areas

neighbourhood



# Available data

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Attribute	Description	Domain
<i>station_name</i>	Name of the police station	String
<i>distances</i>	List of 77 floating point values with the distance in seconds	List

Distances from station  
to community areas

Attribute	Description	Domain
<i>type</i>	Type of crime occurred (31 types)	String
<i>arrest</i>	If arrest occurred	Boolean
<i>domestic</i>	If considered domestic crime	Boolean
<i>community_area</i>	Community area where the crime took place	String
<i>longitude</i>	Length of the coordinate	Float
<i>latitude</i>	Latitude of the coordinate	Float

Crimes database



# Submission requirements

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code commented (not comment per line but block comments) of everything we do (exploration...)  
some minimal documentation of the python file or notebook

- All developed code, commented and working
- Report. 8 pages using IEEE template
  - Abstract
  - Introduction
  - Proposed model
  - Implementation details
  - Experiments
  - Conclusions
  - References

research on what has been done, materials we have consulted not to go blindly



# Assessment

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Aspect	<50%	50-69%	70-89%	90-100%
Style, organization and clarity (1 mark)	<p>The document is not organized in the proposed sections</p> <p>There is no coherence in ideas and explanations</p> <p>References are not present.</p>	<p>There is a certain coherence in ideas and explanations</p> <p>Missing sections or inadequate organization</p>	<p>There is a certain coherence in ideas and explanation</p> <p>No missing sections</p> <p>Adequate use of figures and tables</p>	<p>Ideas and explanations are coherent</p> <p>No missing sections</p> <p>Adequate use of figures and tables</p>
Model (4 marks)	<p>No formal model or plagued with errors</p> <p>No significant original ideas or copied</p>	<p>Correct and complete definition of two:: Variables Constraints Objective function</p> <p>The model illustrates insights extracted from the dataset</p> <p>The model has some significant original ideas</p>	<p>Correct and complete definition of all elements</p> <p>The model incorporates insights extracted from the dataset</p> <p>The model has mostly original aspects and ideas</p>	<p>Correct and complete definition of all elements</p> <p>The model is truthful to requirements and insights from data</p> <p>The model is completely original</p>
Coding (3 marks)	<p>Incomplete code, non-functional, no merit or plagiarism</p>	<p>The code implements part of the model and has merit</p> <p>Code partially explained in report</p>	<p>The code implements the model and has merit</p> <p>Code explained in report</p>	<p>The code implements the model and has merit</p> <p>Code explained in report</p> <p>Documented code</p>
Experiments (2 marks)	<p>No experiments, no merit, or non-functional</p>	<p>Provided functional code for experiments</p>	<p>Provided functional code for experiments</p> <p>Experimental results explained in report</p>	<p>Provided functional code for experiments</p> <p>Experimental results explained in report</p> <p>Correct methodology for analysis</p>



# Thank you!

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