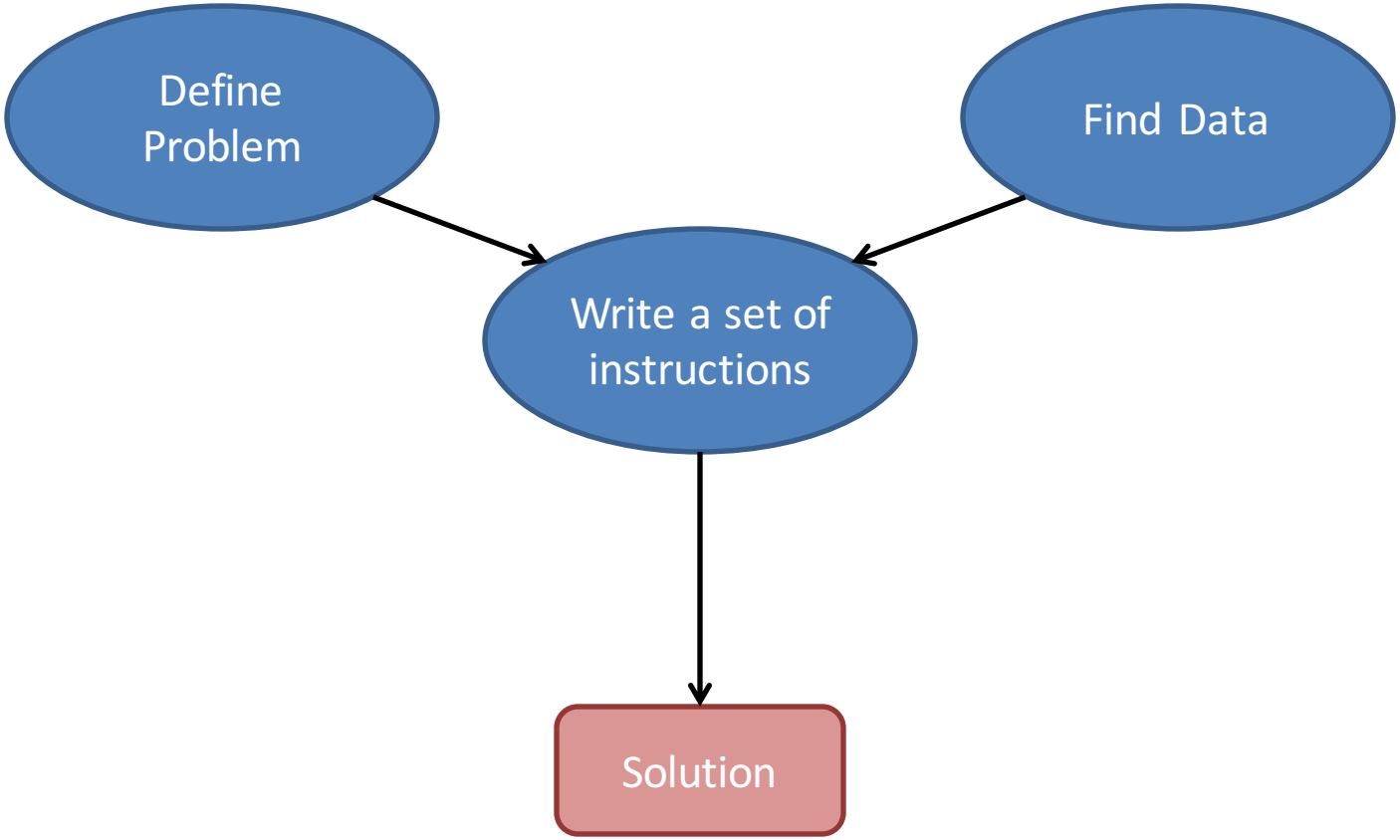
Final Project!

Nov 17, 2015

Final Project



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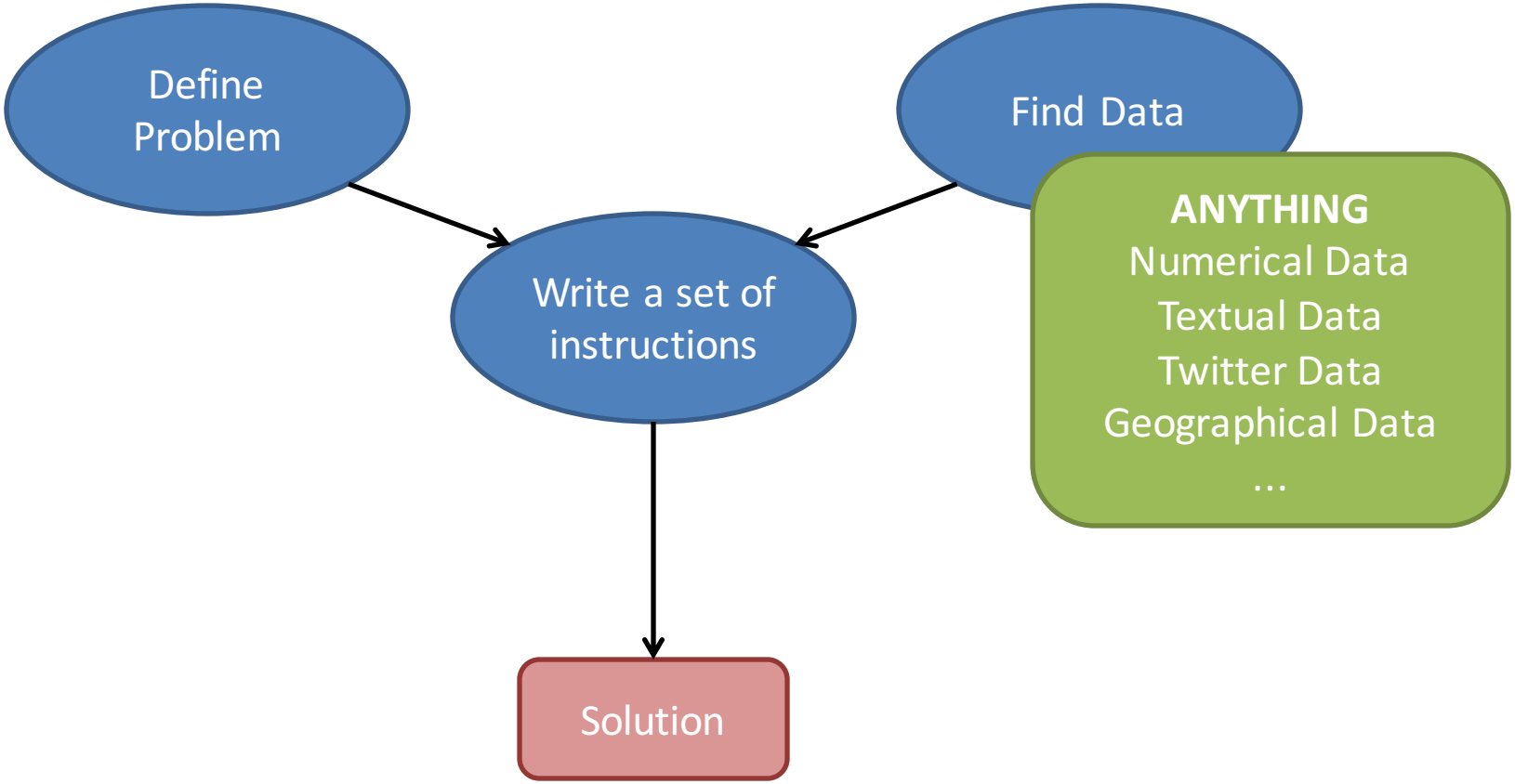

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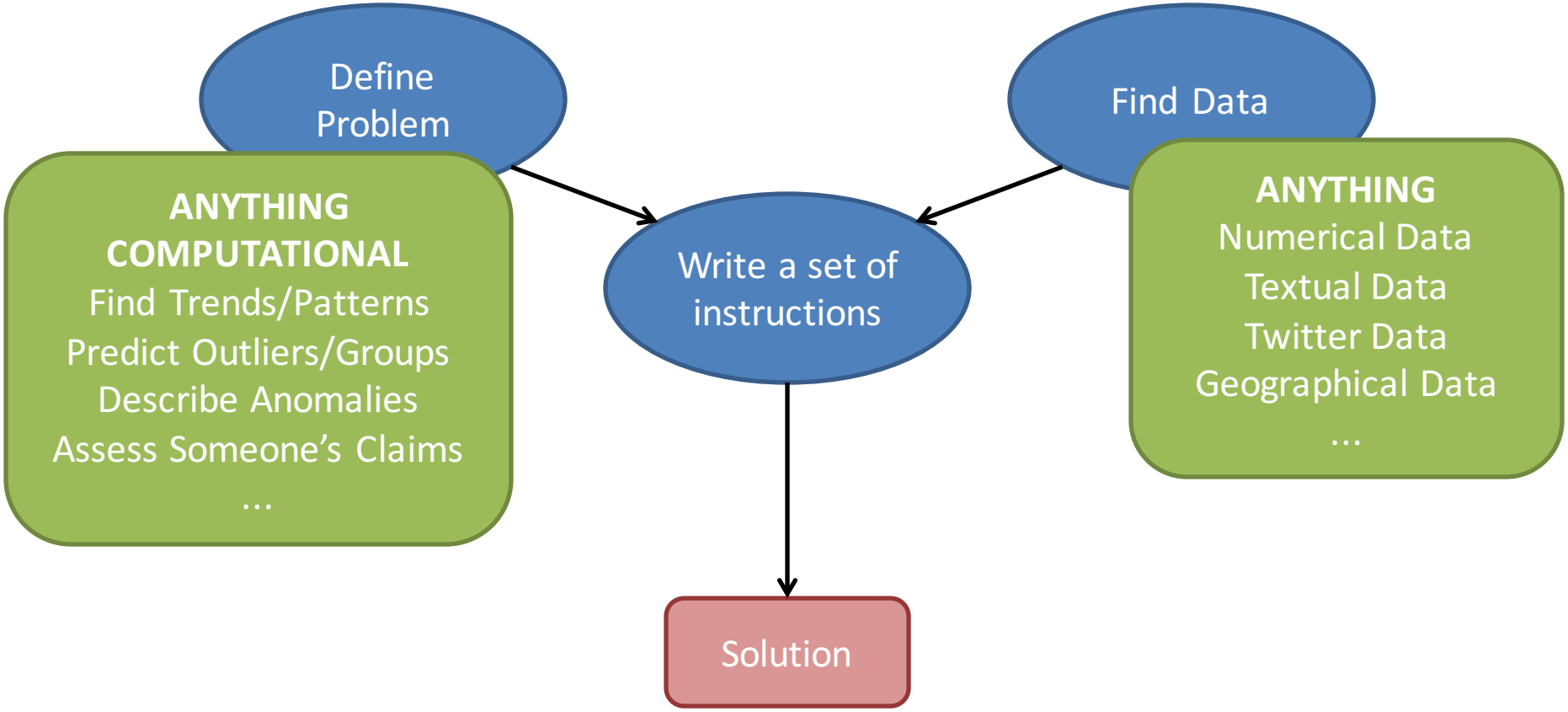

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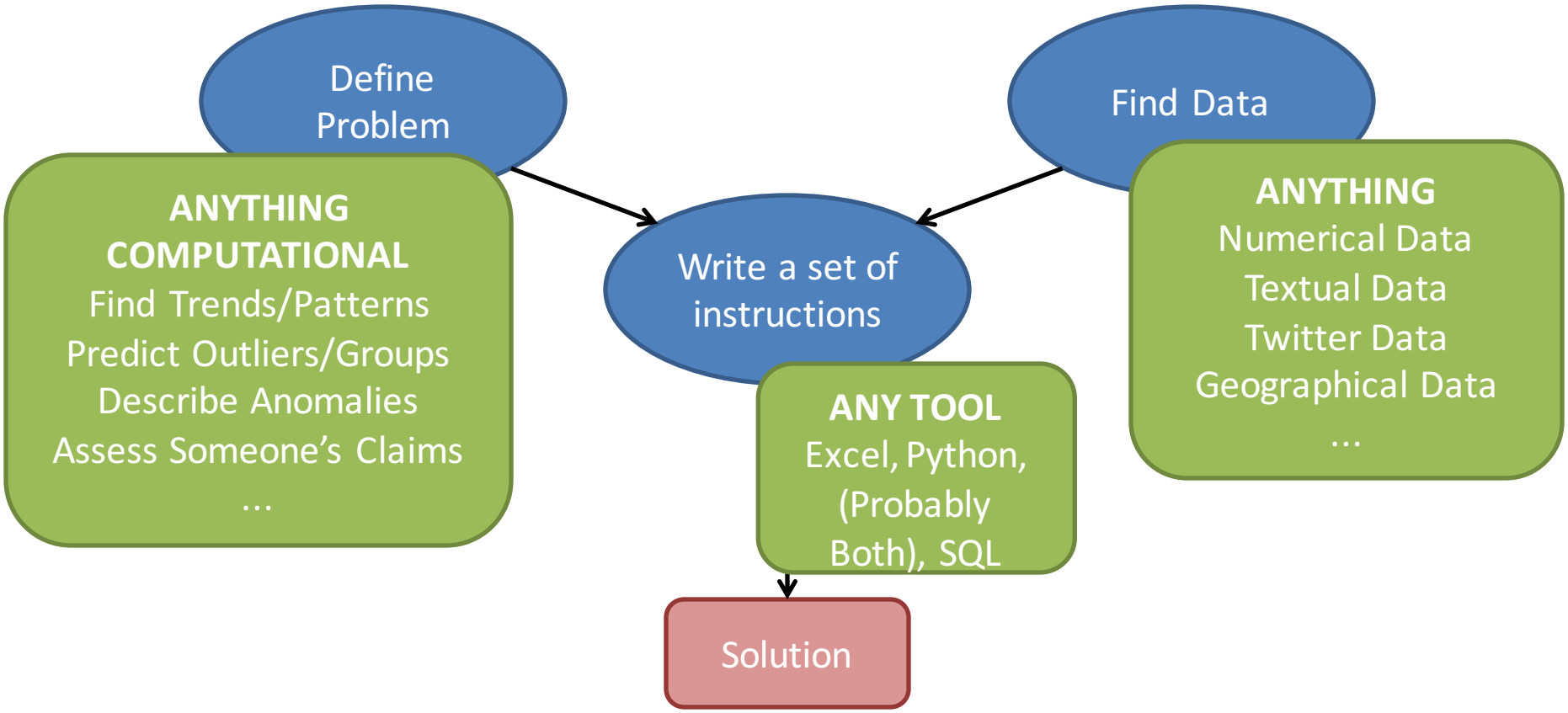

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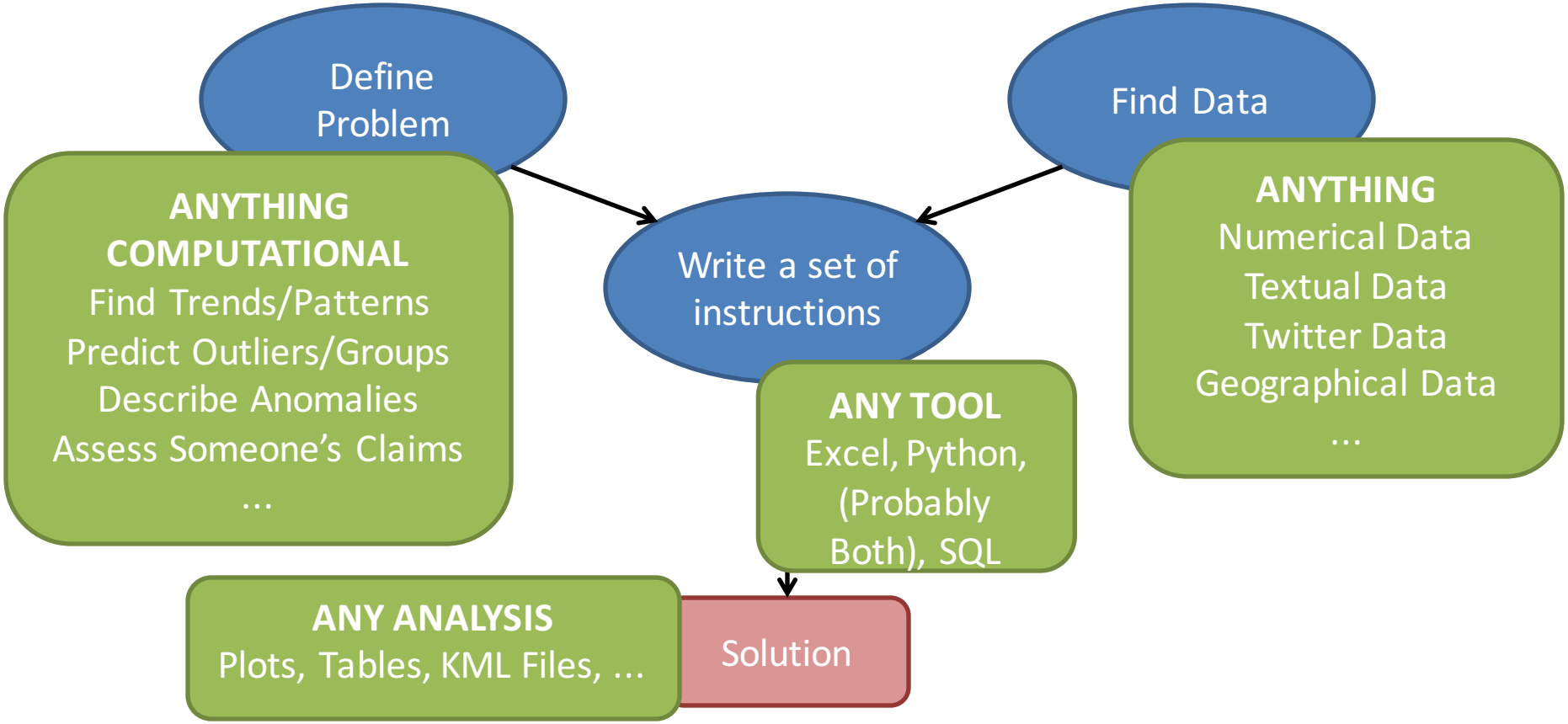
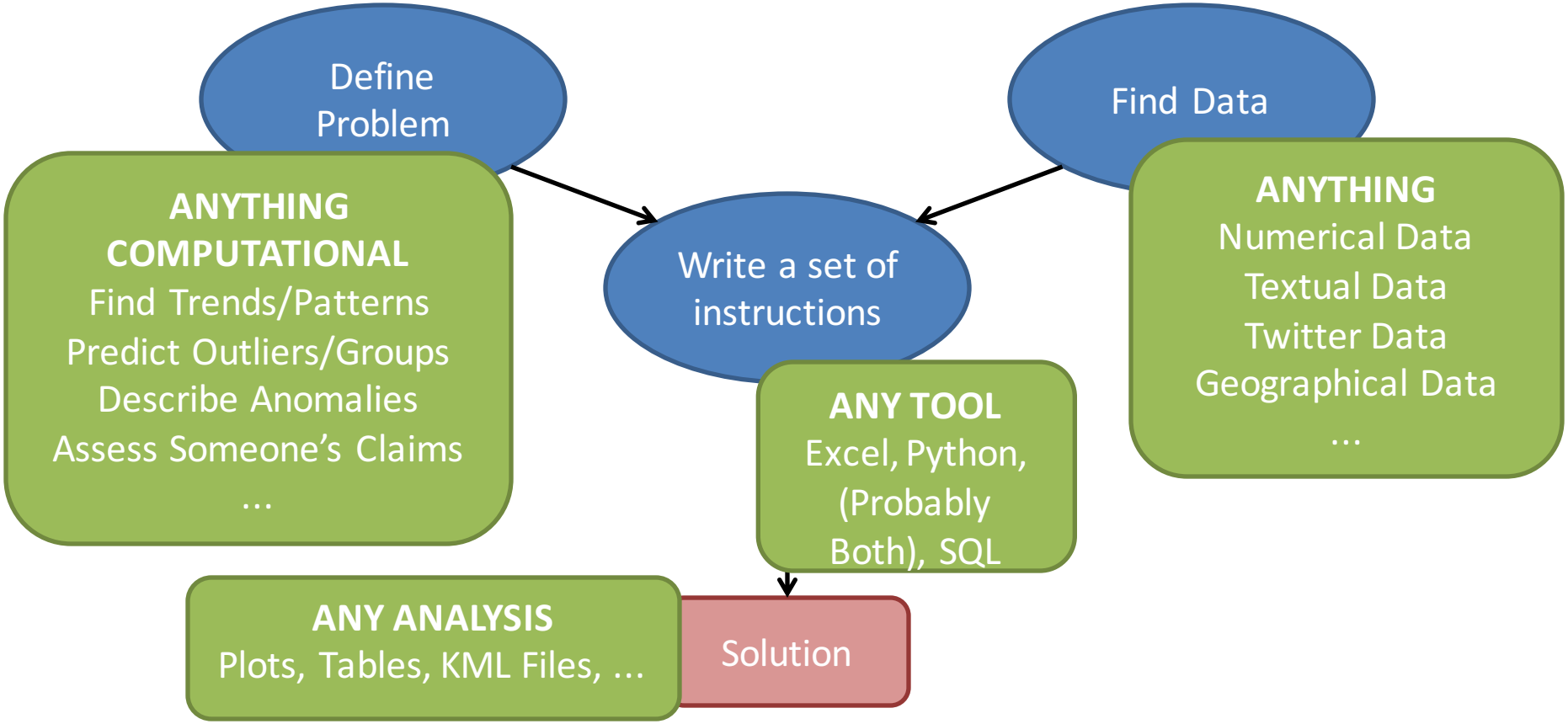


Final Project

Only Constant: you will use computers to *process & visualize* data automatically



Grading Breakdown

Component	% of Overall Grade
Homework Assignments	50
Unit Project #1	10
Unit Project #2	15
Final Project	25

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This is important!
Don't drop the ball!

Today

- Example Final Projects
- General Project Description
  - Scope
  - Timeline

Example 1: Where should I Live?

I want to buy a house somewhere near my hometown. Where should I buy?

Kasey Hass's Project

https://sites.google.com/a/brown.edu/house-hunting-mecklenburg-county/home

In Each Zip Code:

Rent price: Red dollar sign

Vacancies: For sale sign

Income: Green dollar sign

Marriage rate: Wedding rings

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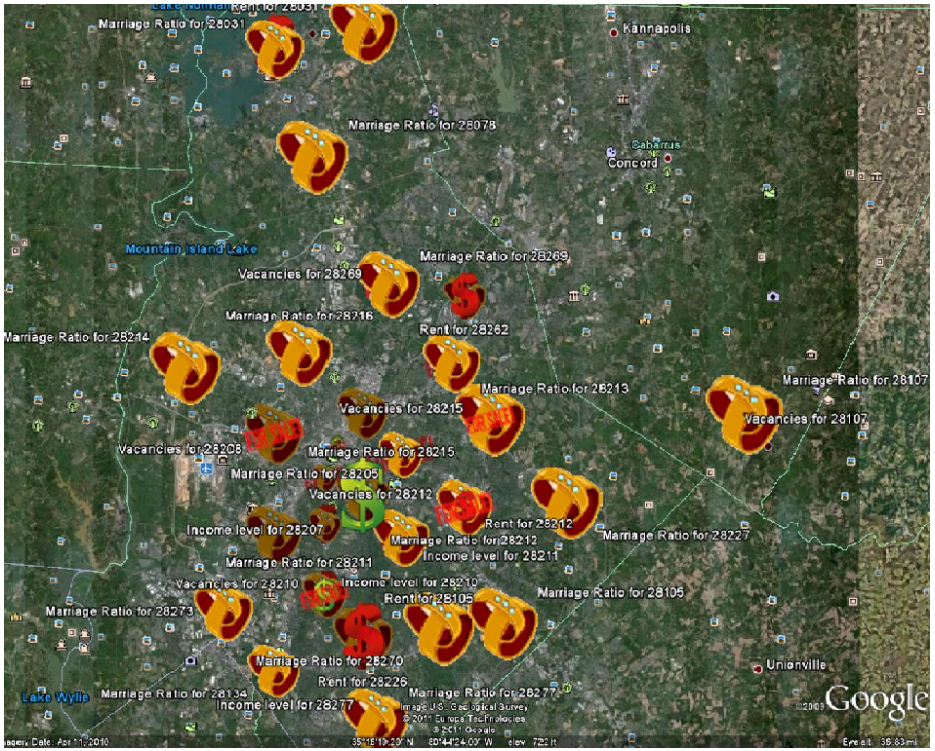

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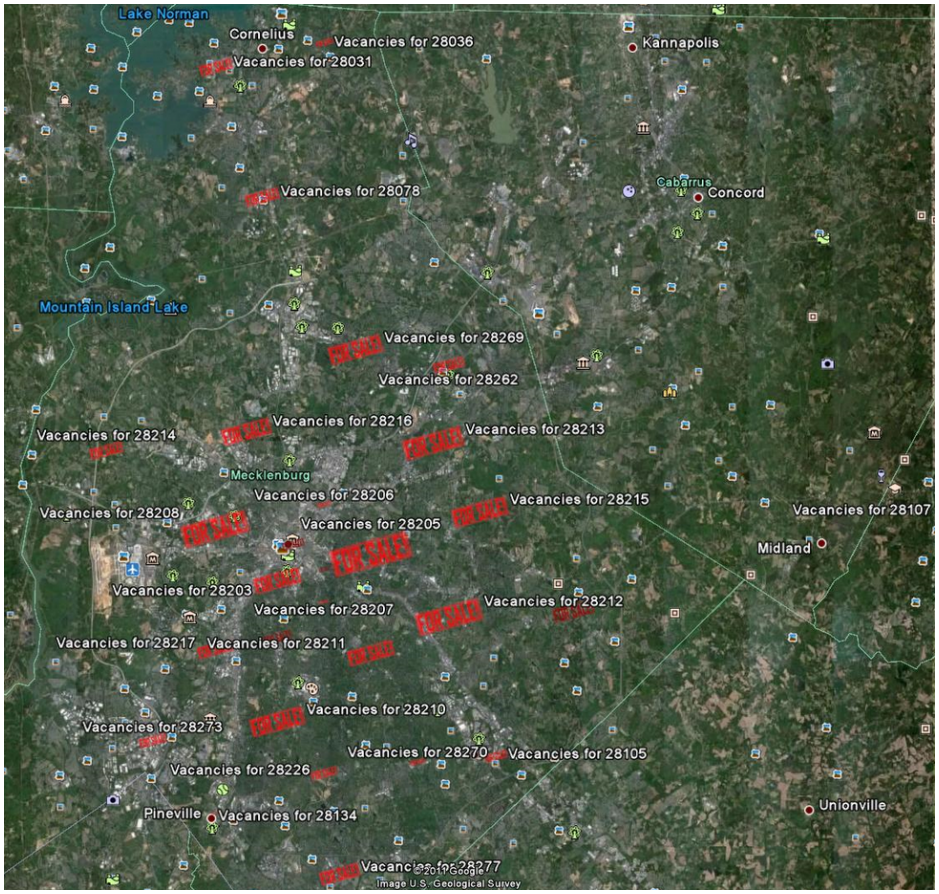

Example 2: Athletes & Geography

Malcolm Gladwell's *Outliers*

- Professional Canadian hockey players

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  - Mostly born in January.
  - Few are born in December.
  - Junior league's cutoff is Dec. 31st

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Malcolm Gladwell's *Outliers*

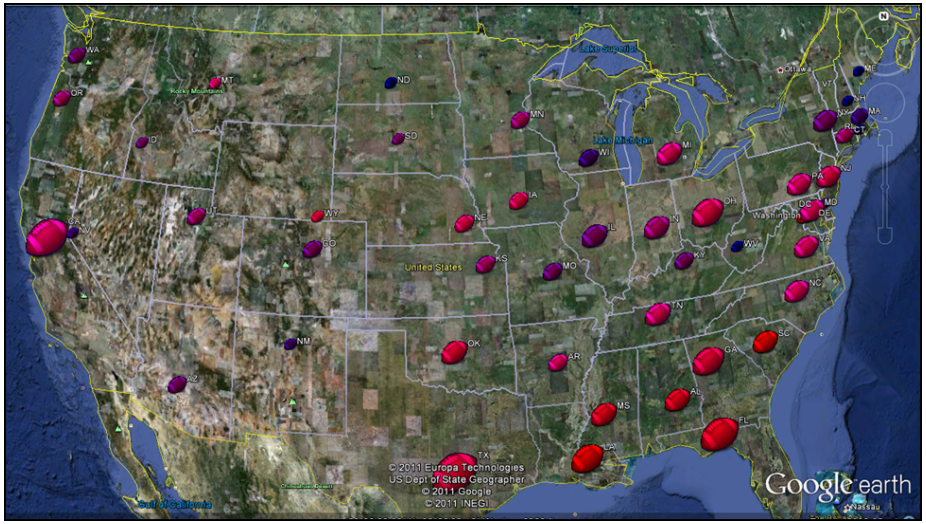
- Professional Canadian hockey players
  - Mostly born in January.
  - Few are born in December.
  - Junior league's cutoff is Dec. 31st
- Any association between professional players and *where* they were born?

Example 2: Athletes & Geography

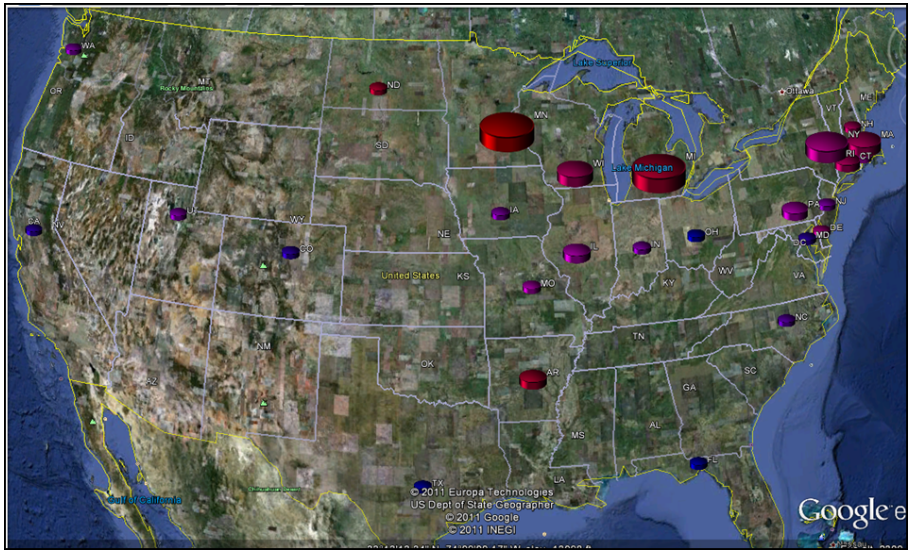
Daniel Newmark's Project

https://sites.google.com/a/brown.edu/daniel-s-data/project-4--distribution-of-athletes

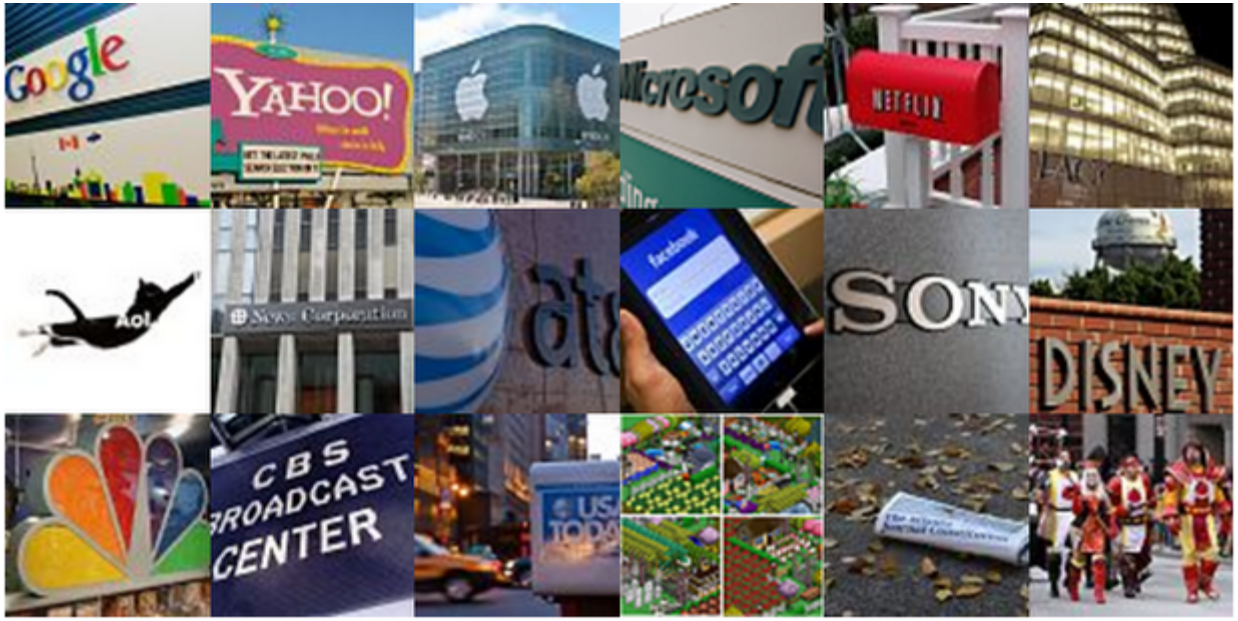
Football (NFL)



Hockey (NHL)



Example 3: Growth of Top Digital Media Companies



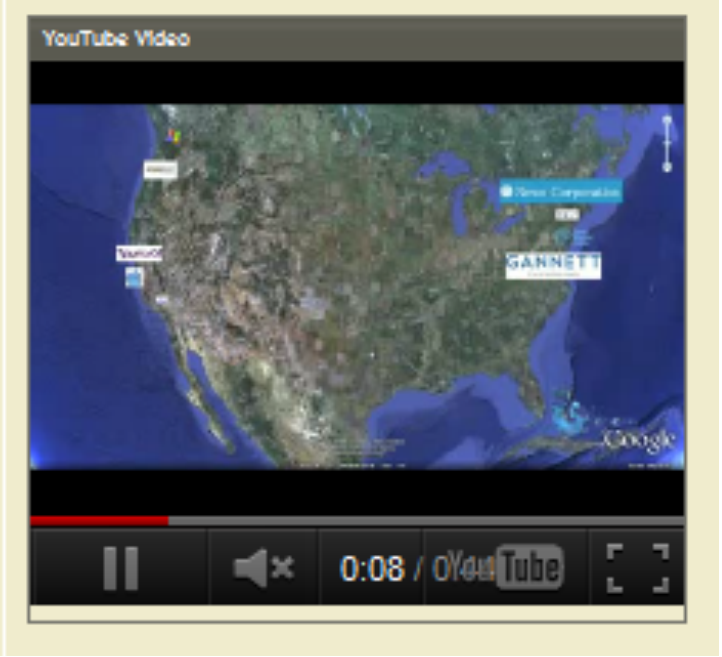
How does the Growth Rate Compare in the Past 10 Years?

Example 3: Growth of Top Digital Media Companies

Nicholas Talbott's Project

https://sites.google.com/site/growthofdigitalmediacompanies/home

One KML File for Each Year
Logo Size shows Growth



YouTube Video:

http://www.youtube.com/watch?v=QDtDF6_mrkc

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  - Scope
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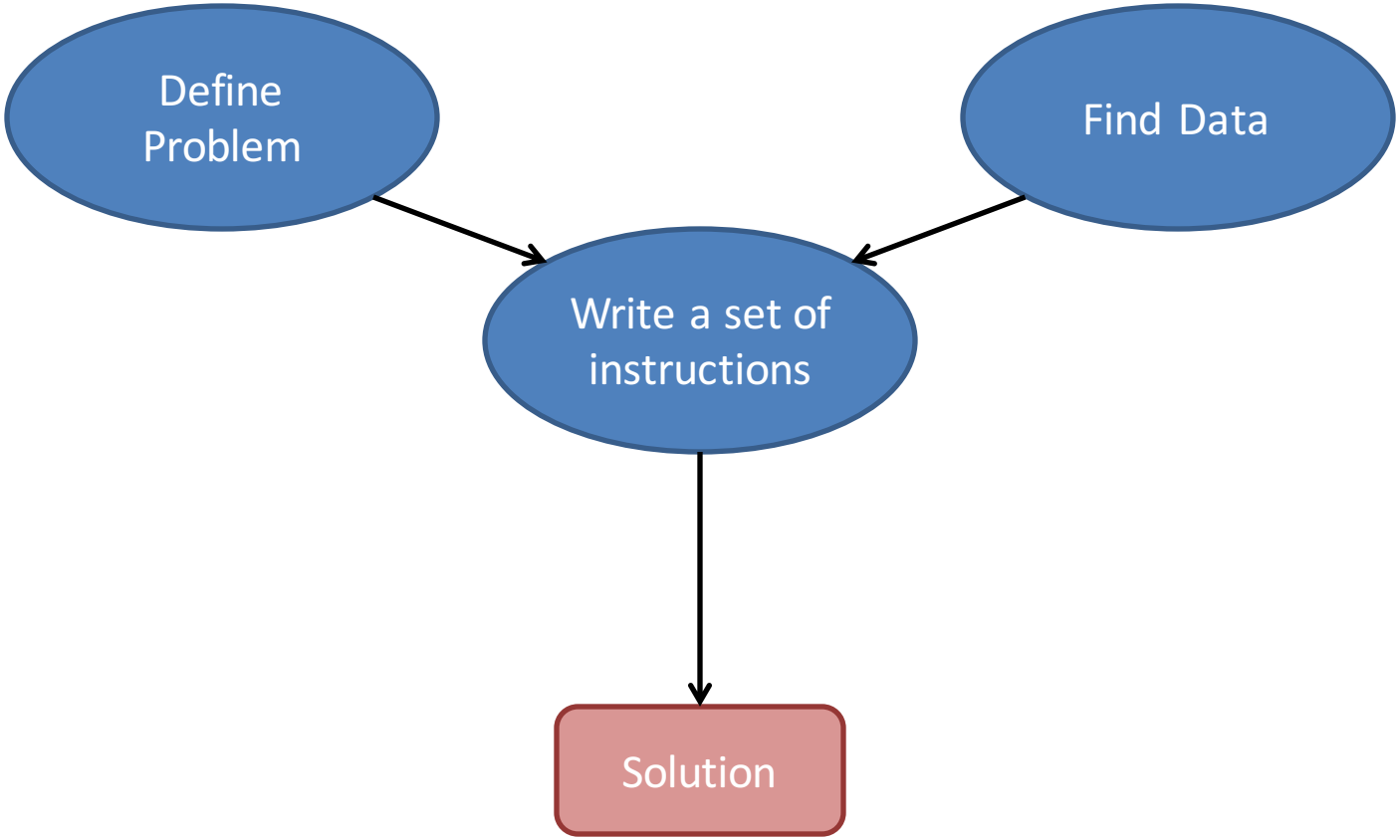
Scope – Think Big!
(& Have Backup Plans)



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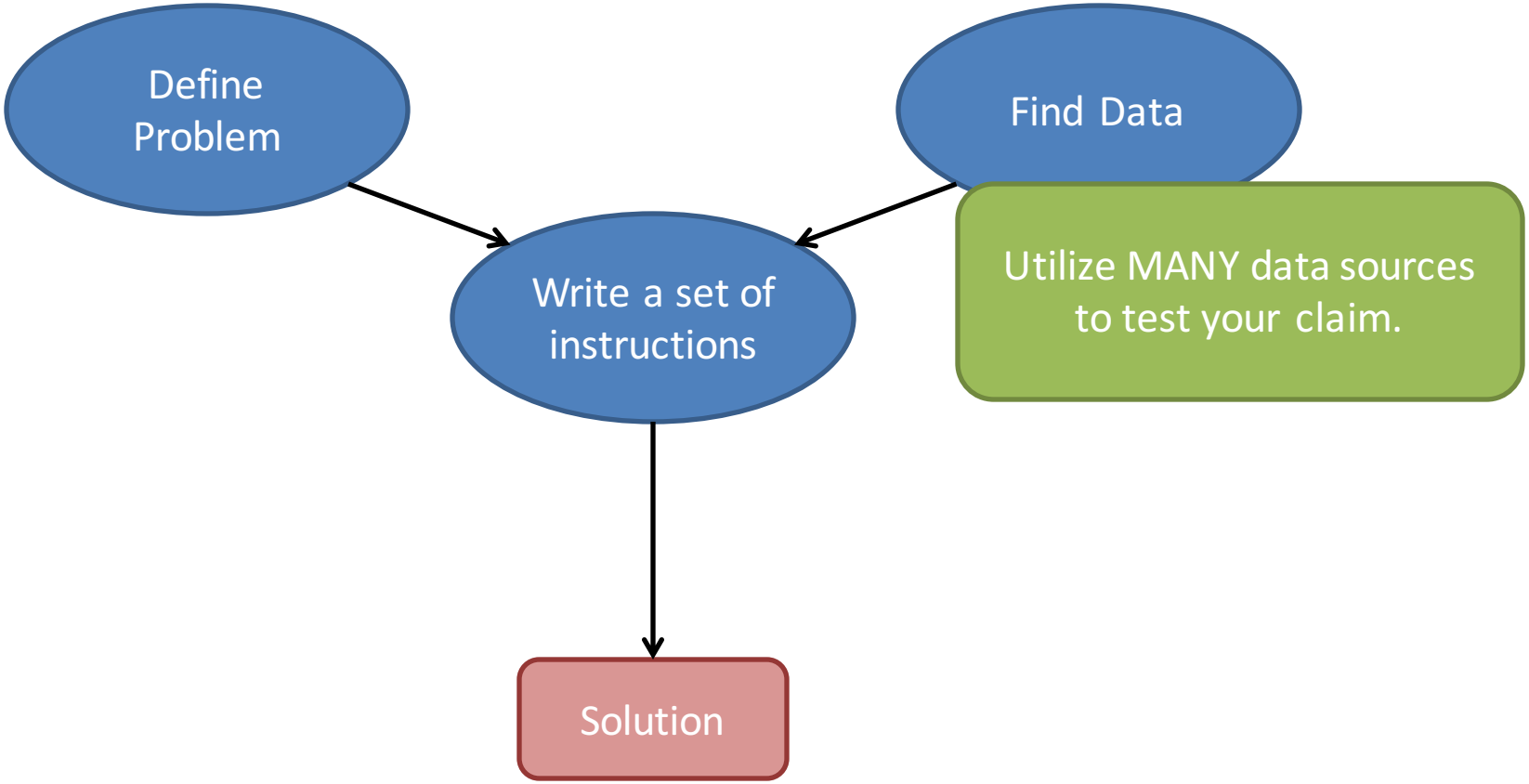

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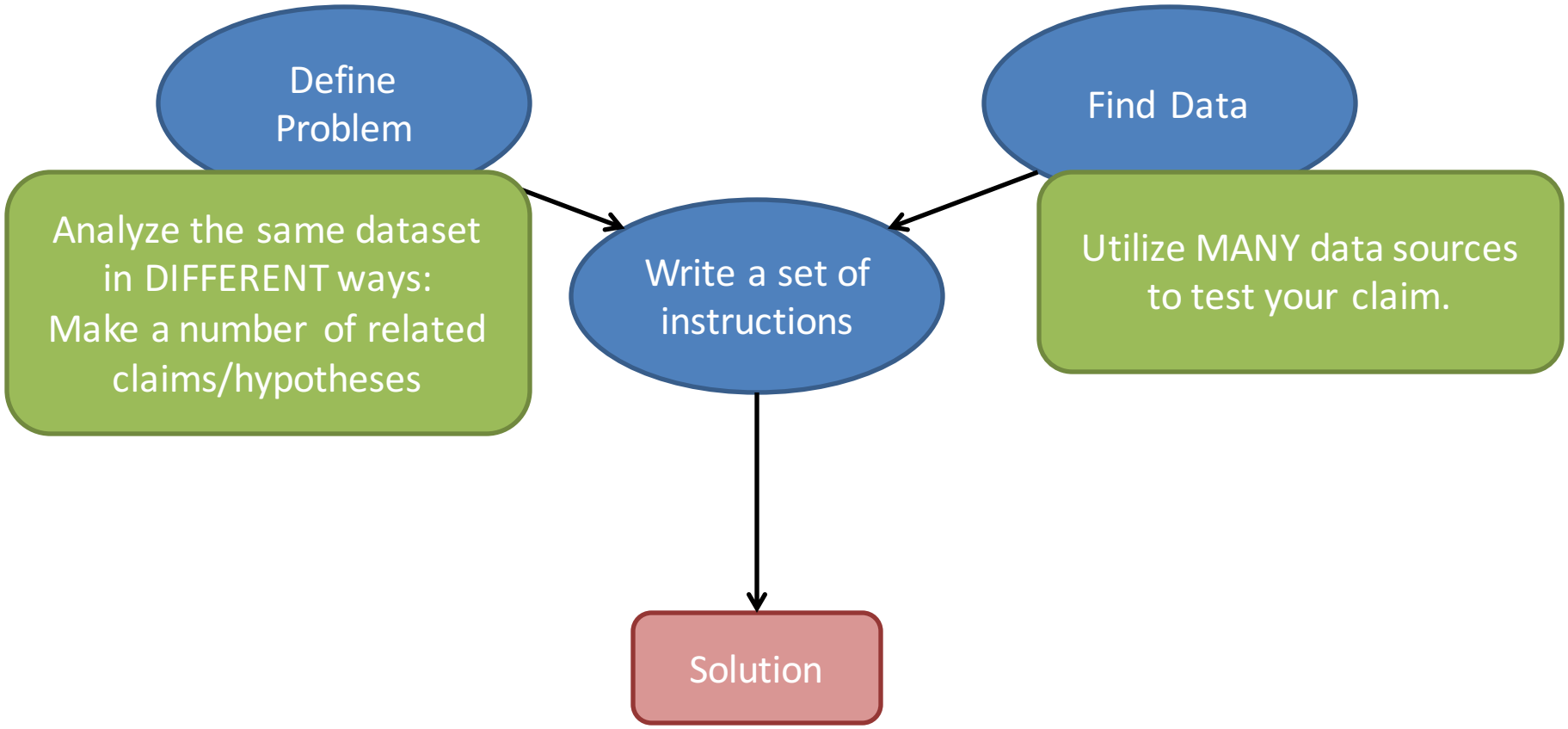

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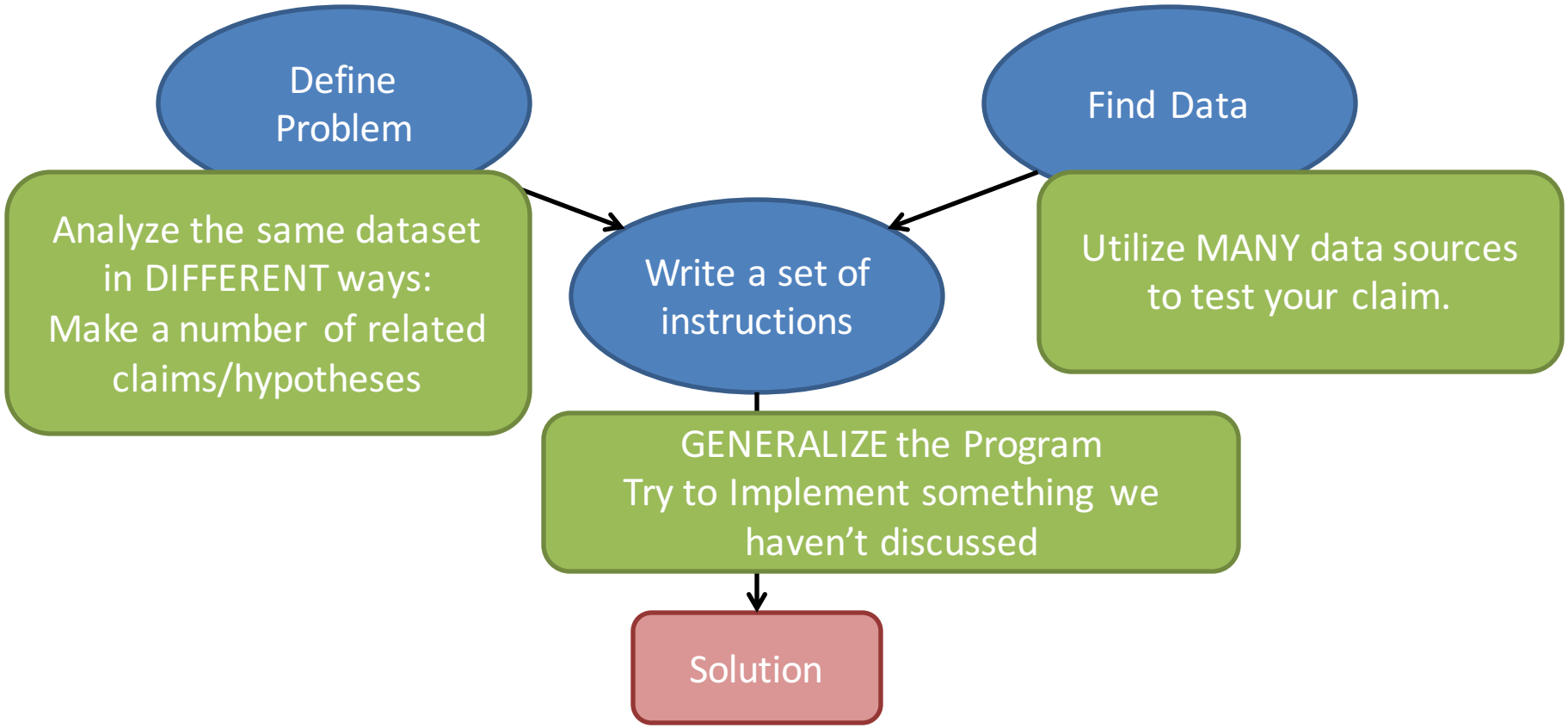

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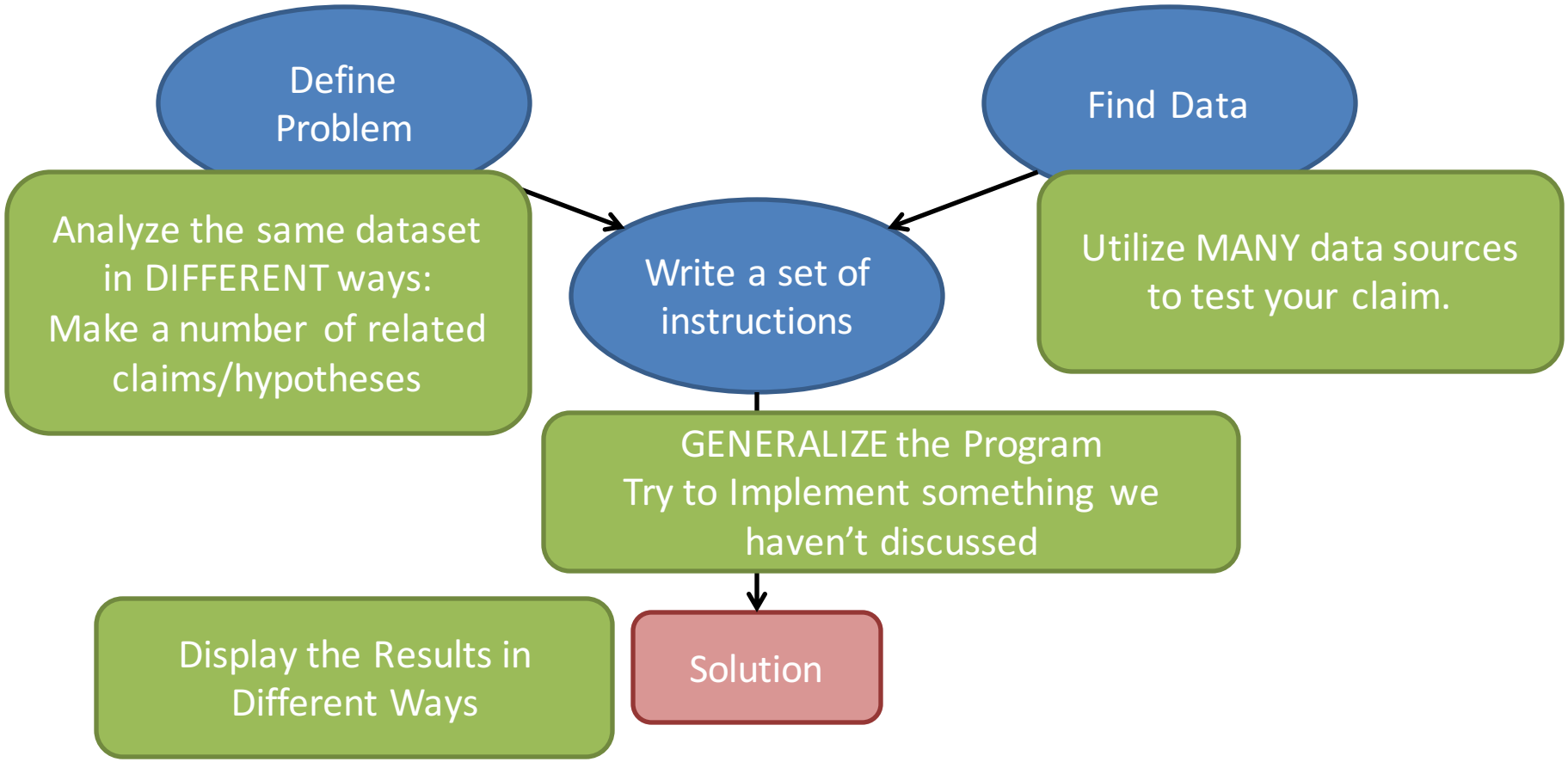

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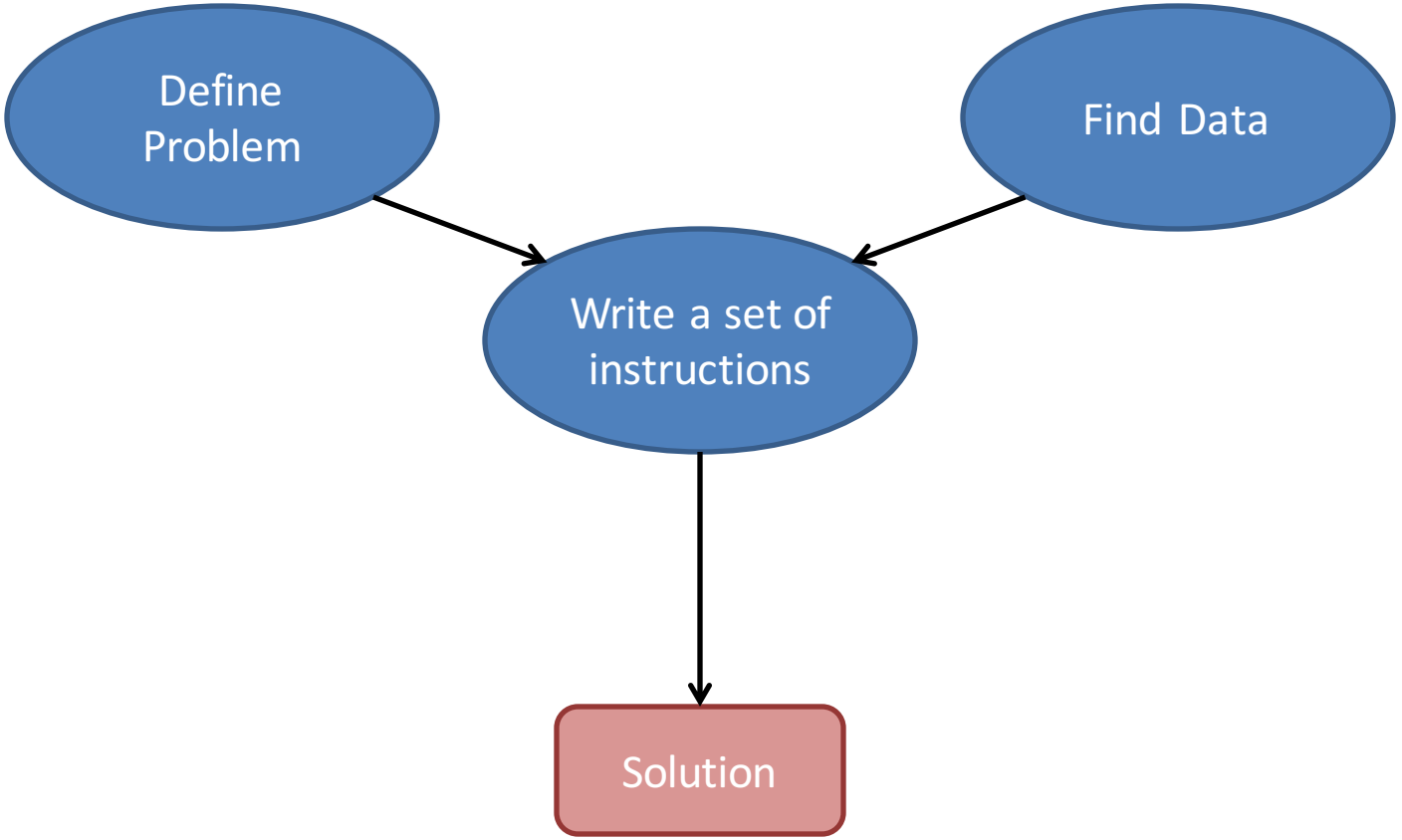
Timeline

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	11/16	11/17	11/18	11/19	11/20	
		Meet With Staff At Least Once				
		Project *Out*		Twitter and While Loop & HW 3-2 *Out*		
	11/23	11/24	11/25	11/26	11/27	
		SQL 1				
	11/30	12/1	12/2	12/3	12/4	
		Meet With Staff At Least Once				
		SQL 2		SQL 3		
		12/8	12/9	12/10		
		In-class Work Time	*Project Due*	**Last Class:** ***2min Presentations and reflection (and food)***		

Before You Begin...

Say you have a vague idea of what you want to do....



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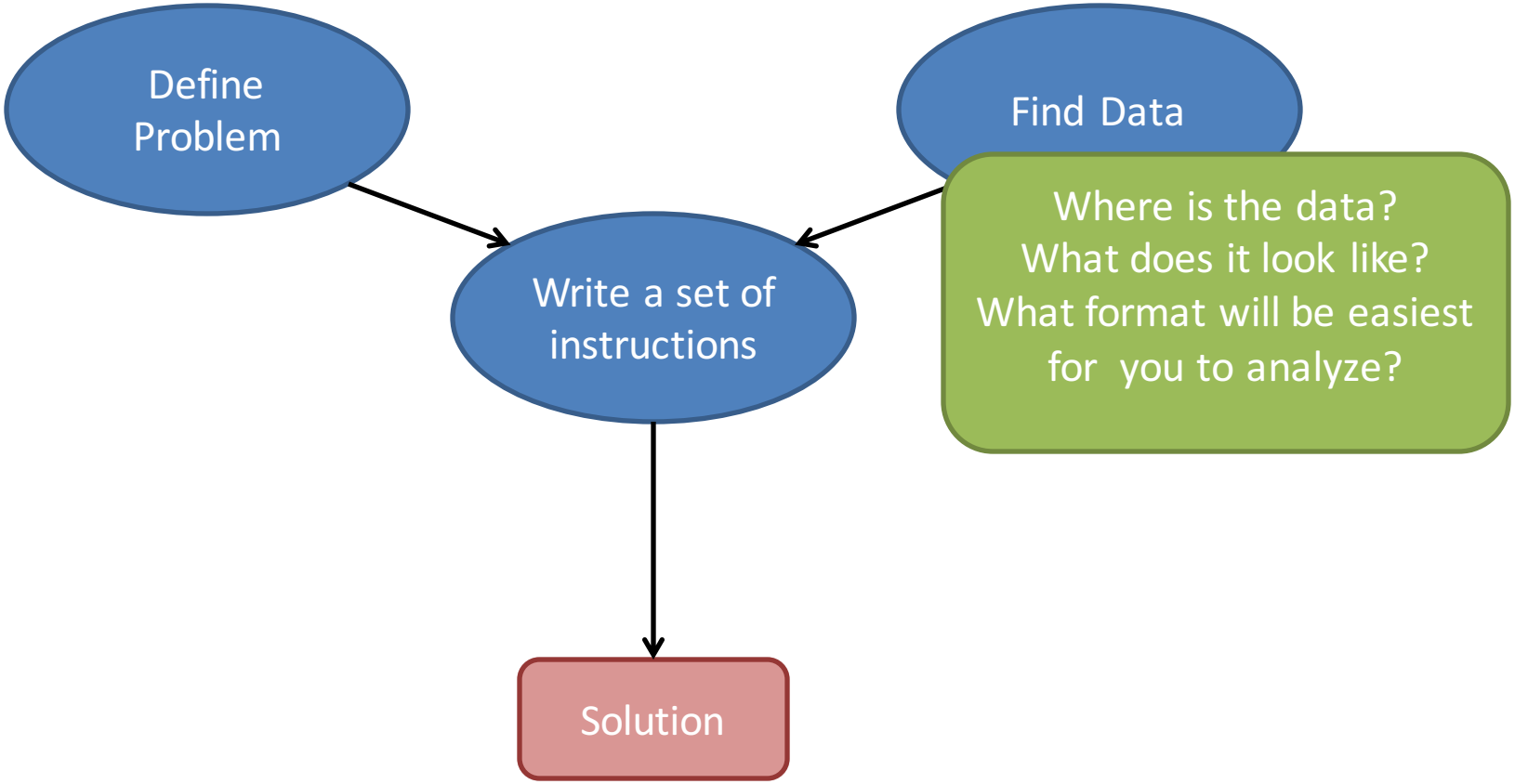

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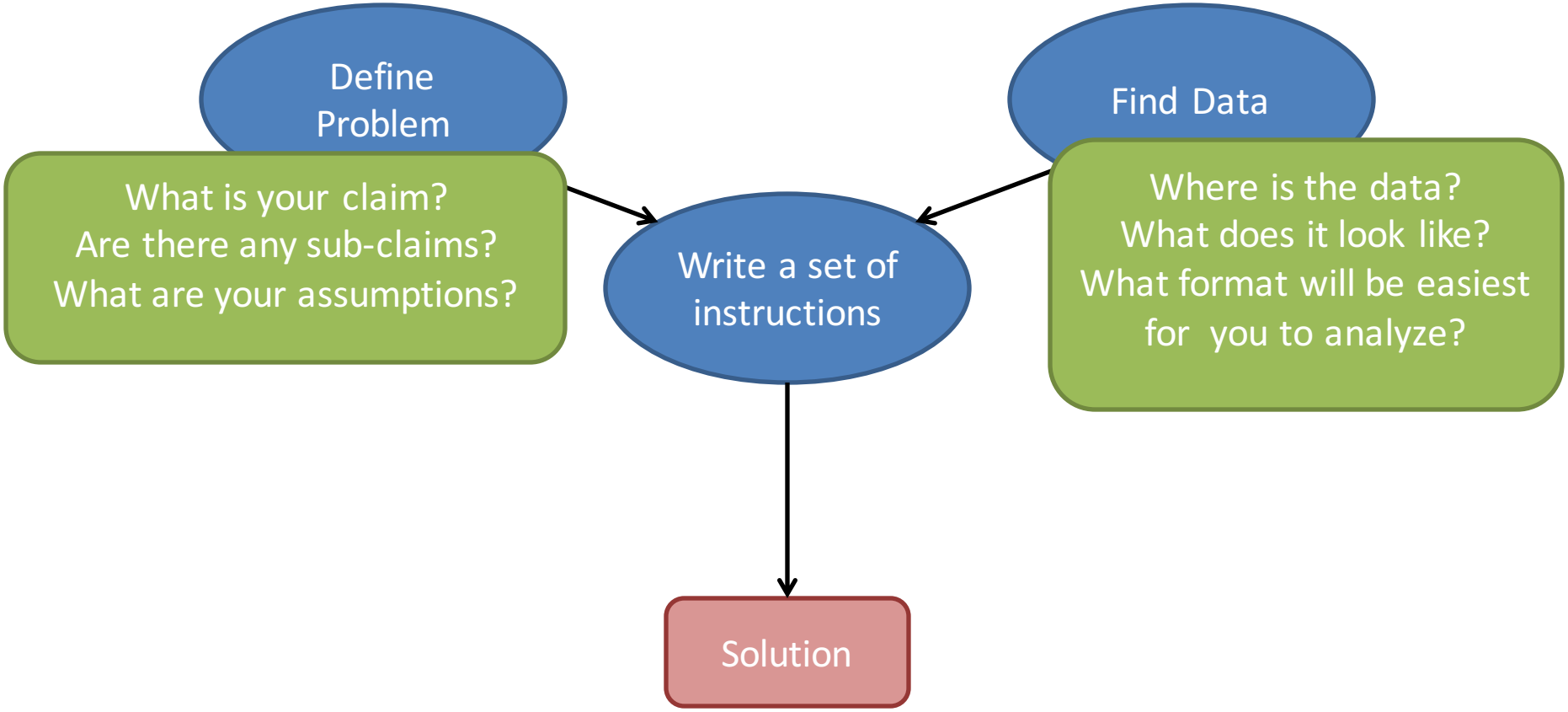

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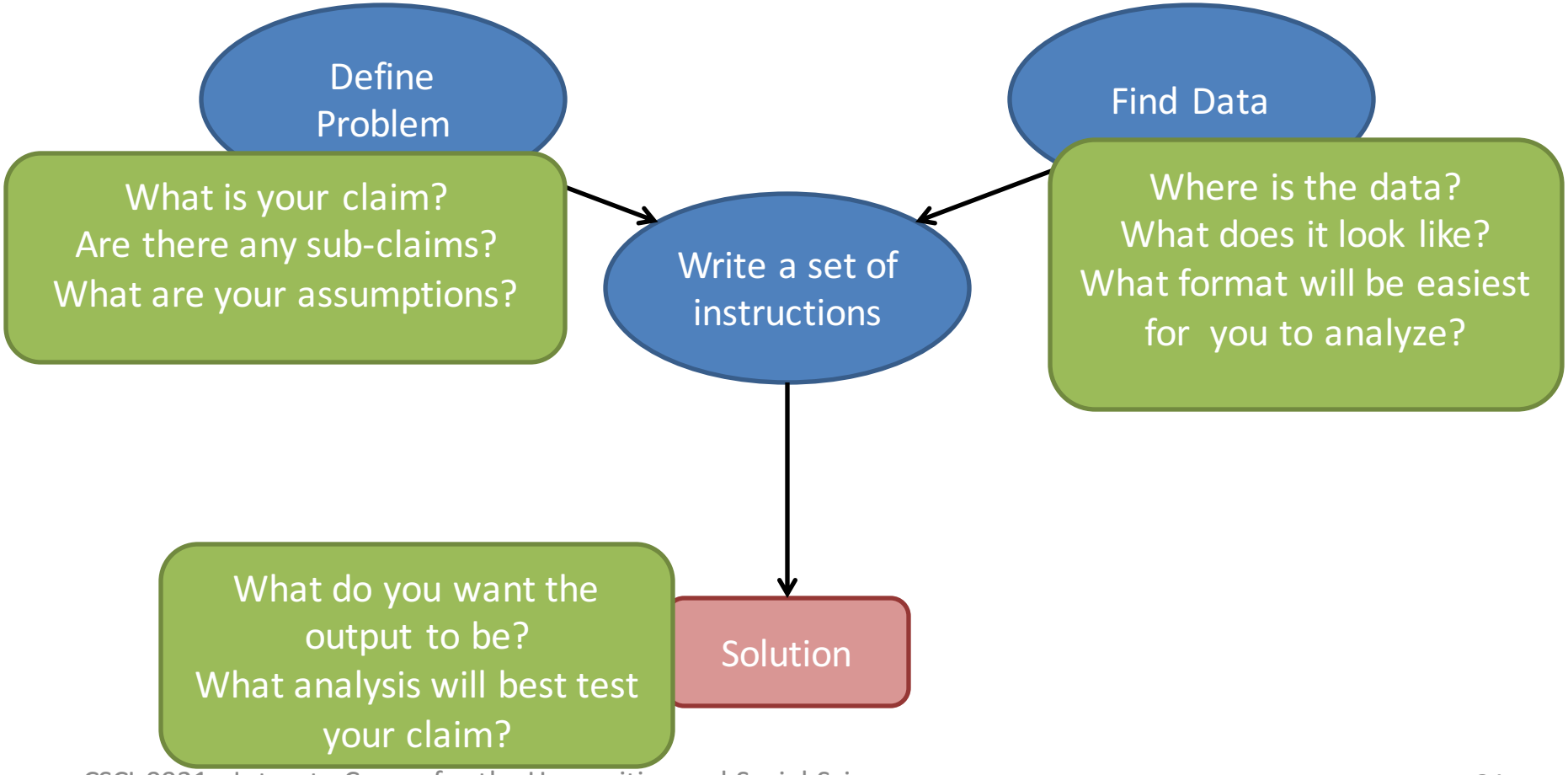

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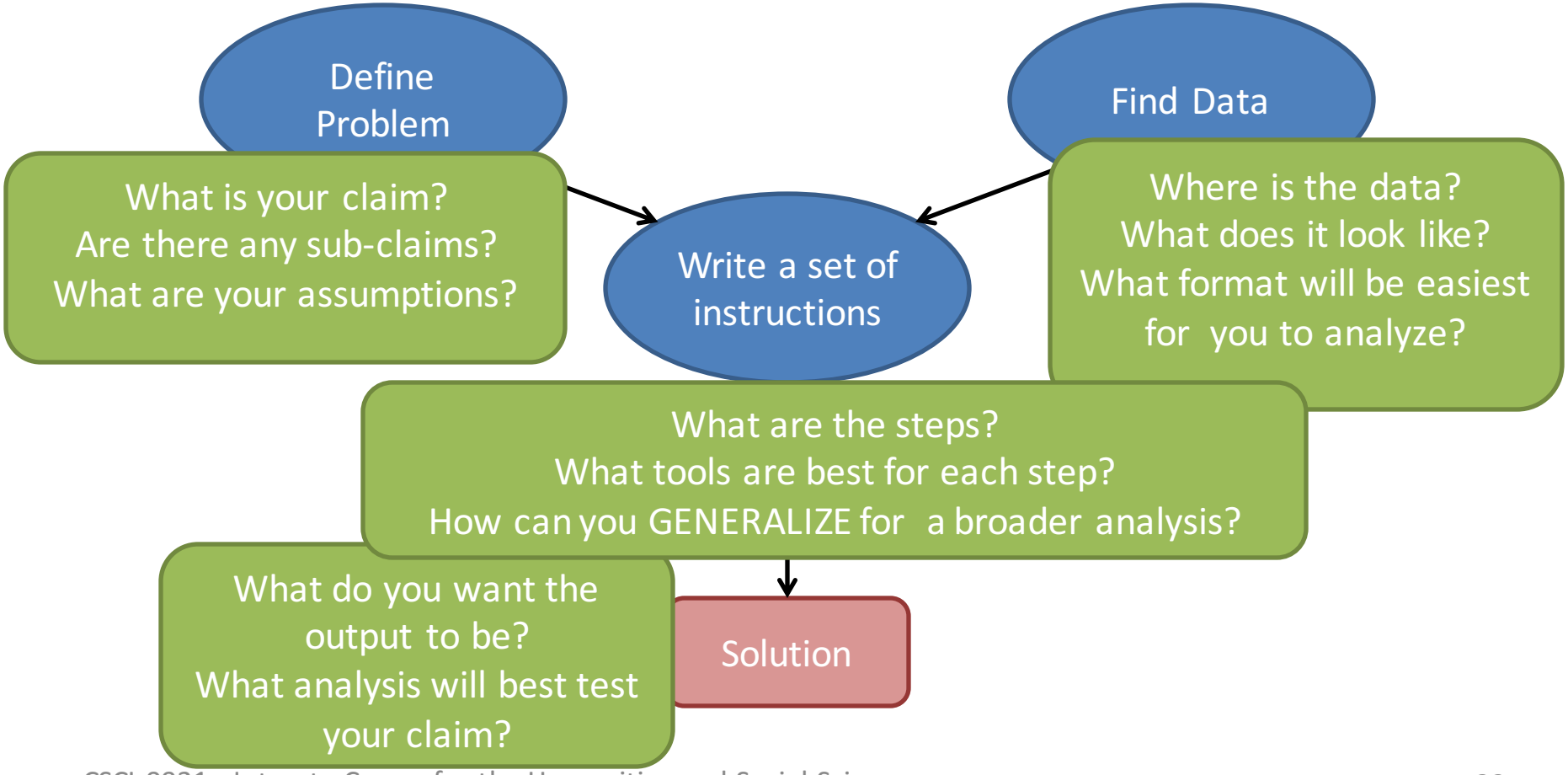

Things you know

- How to obtain data from the web *(urllib)*
- How to parse XML files in Python *(xml.etree)*
- How to look for specific patterns in a text *(re)*
  - Advanced pattern matching & transformations
- How to obtain tweets *(tweepy – next class!)*
  - From a user's timeline
  - Based on a search term (+ restricted geographically)
- How to use Google's geocoding API *(using JSON)*
  - Place name to latitude/longitude
  - Latitude/longitude to place name
- Generate KMLs! *(HW 3-2, sooooon!)*

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- Generate KMLs! *(HW 3-2, soo*

Things to consider

- Don't reinvent the wheel
  - Use code from activities, homeworks
  - Use your own code
- Start working *early*
  - *Don't wait to start after handing in the proposal*
  - *The proposal is "early feedback" not "pre-feedback"*

- Ask for help during *office hours* and the *in-class Project Workshop* (12/8)

Last curves in the roller coaster ride…