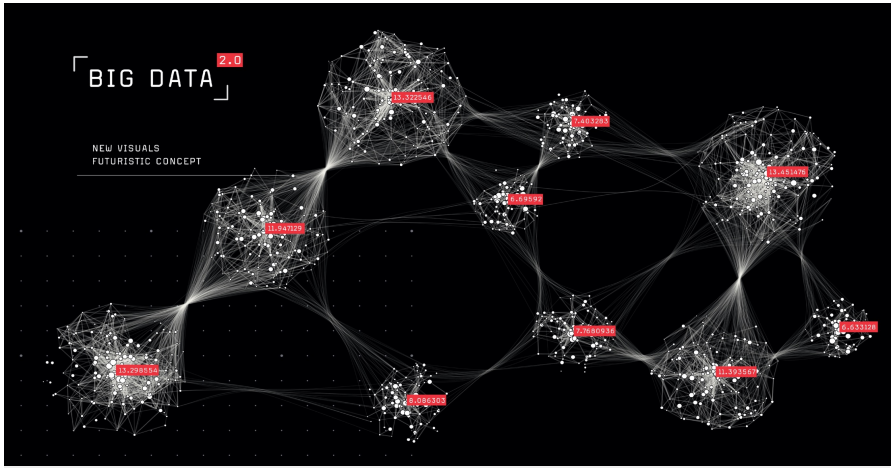
Data Science in Action using ikigailabs

An AAII Artificial Intelligence– Technical Track Course



Course Outline

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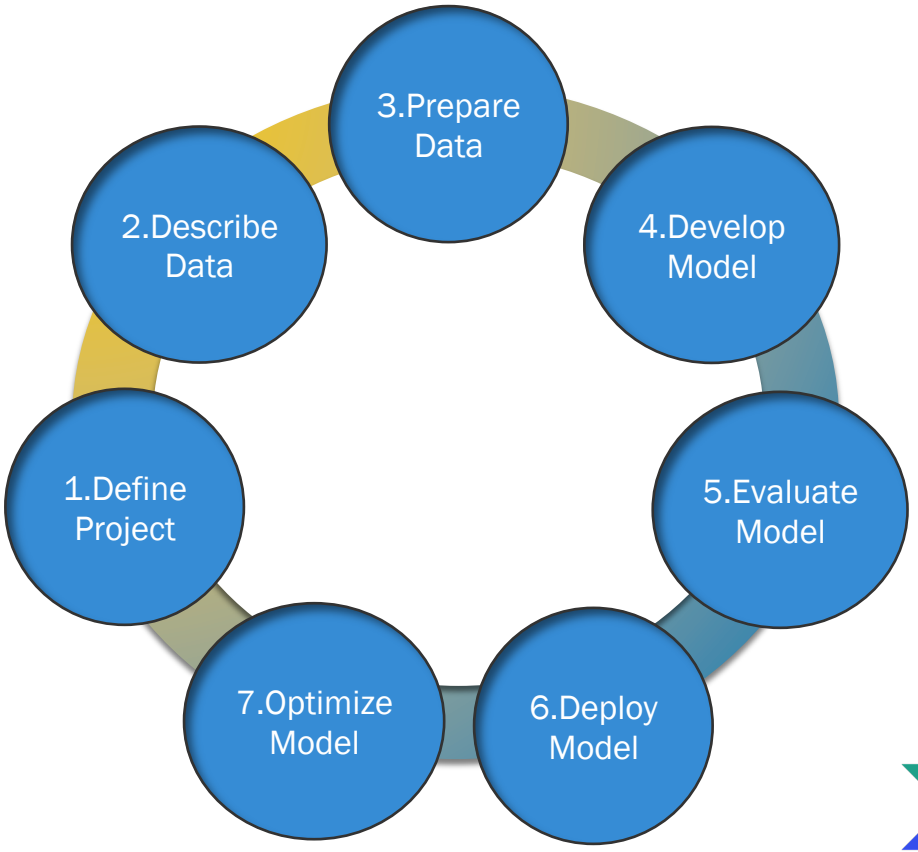
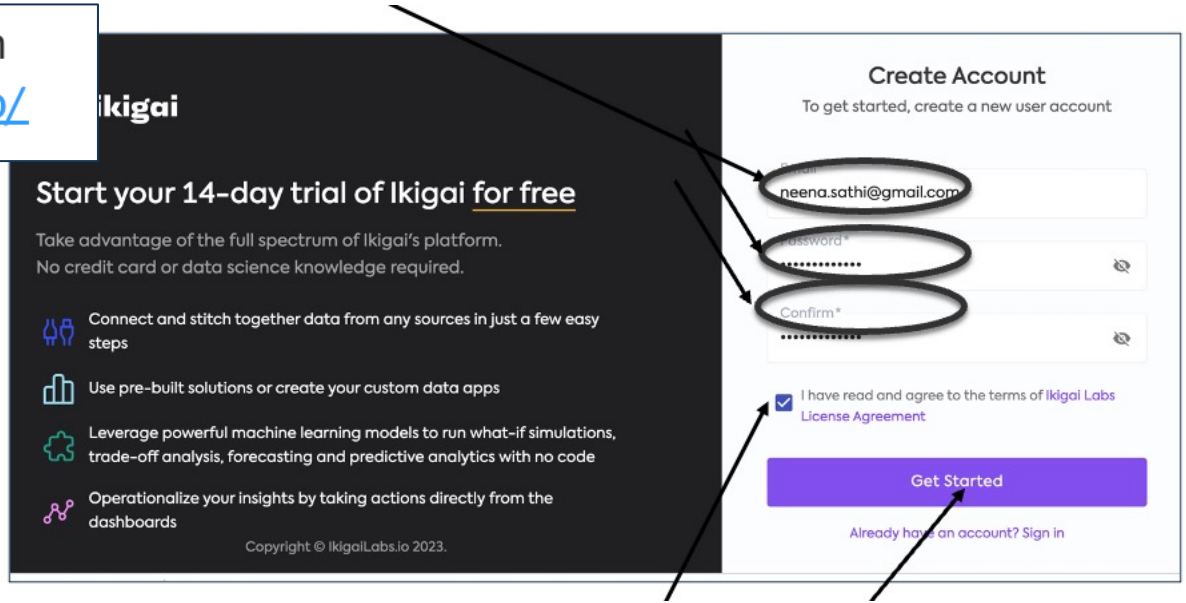
1. Introduction to Course



Course Outline

1. Introduction to Course
2. Set up sandbox

1. Open the Ikigai platform
   https://app.ikigailabs.io/



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1. Introduction to Course
2. Set up sandbox
3. Step 1 – Define Project

Define Project – Health Equity Use Case Example

User Persona

Citizens

Healthcare Administration Staff

Needs / Benefits

Objective:
Need to understand current health infrastructure to expand services in new communities

Queries:
- What are social and health profile of a specific communities in the state of California?
- How do various counties compare to each other based upon their social, demographic and health resources

Goals / Success Criteria

Can we make health equity score for communities based upon its
- Demographic, social and health resources
- 90% Accuracy
- Time boxed

Project Plan

Tasks

Start	W 1	W 2	W 3	W 4
Project Planning				
Data Collection				
Data Preparation				
Modeling				
Visualization				
Testing				
Deployment				

Deliverables

Plan Model Dashboard

Resources
- 2 resources
- Cloud Sandbox

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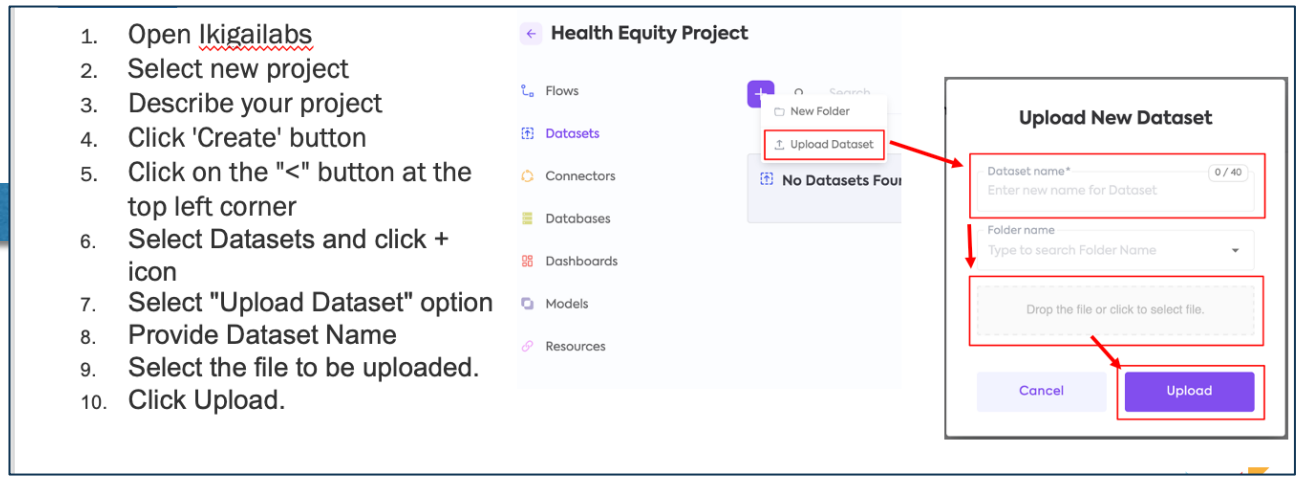
Course Outline

1. Introduction to Course
2. Set up sandbox
3. Step 1 - Define Project
4. Step 2 – Describe Data

1. Open Ikigailabs
2. Select new project
3. Describe your project
4. Click 'Create' button
5. Click on the "<" button at the top left corner
6. Select Datasets and click + icon
7. Select "Upload Dataset" option
8. Provide Dataset Name
9. Select the file to be uploaded.
10. Click Upload.



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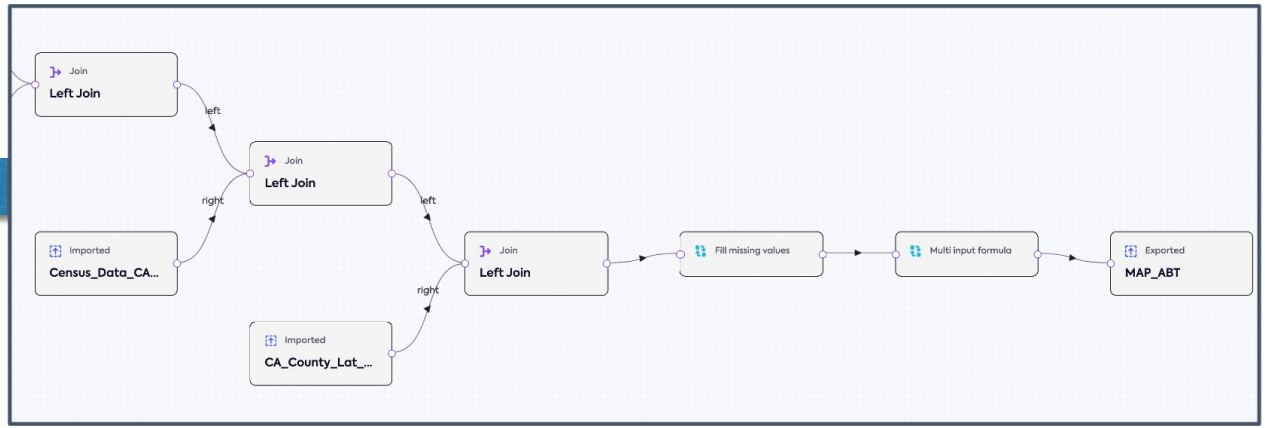
5. Step 3 - Prepare Data



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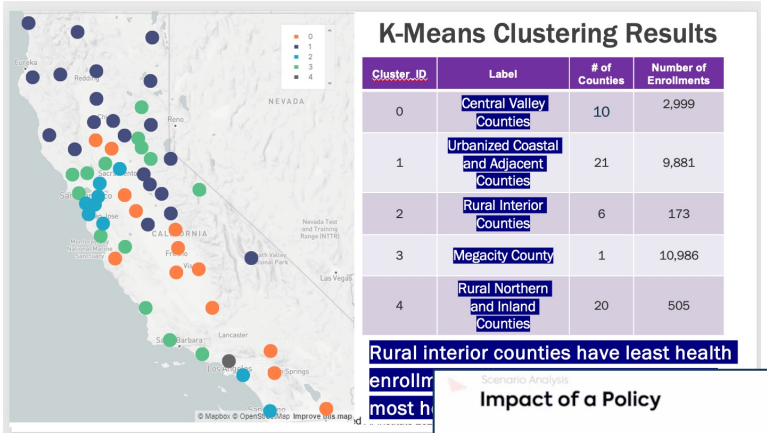
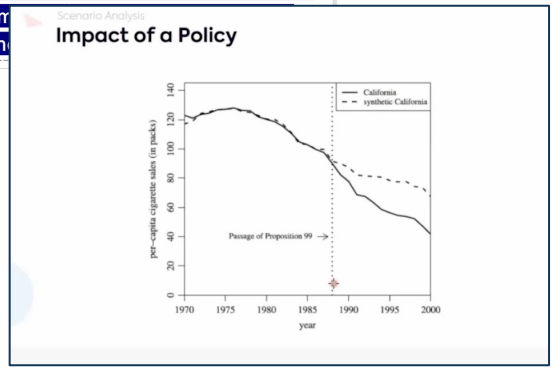
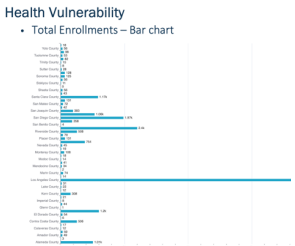
1. Introduction to Course
2. Set up sandbox
3. Step 1 - Define Project
4. Step 2 - Describe Data
5. Step 3 - Prepare Data
6. Step 4 – Develop Model



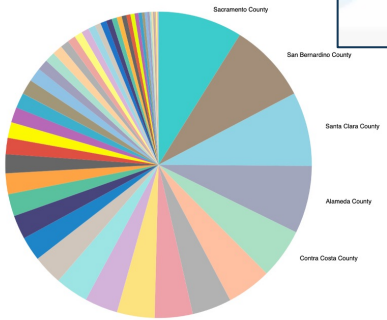


Top 5 Counties

CountyFullName	Cancer_Rate_per_100K
Lake County	78.2
Glenn County	77.4
Amador County	73.5
Colusa County	68.3
Tehama County	67.7



Cancer Total – Pie chart



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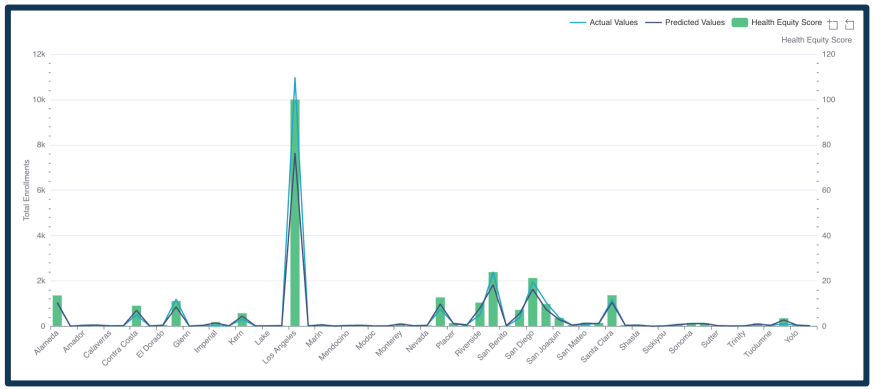
7. Step 5 – Evaluate Model

County	Total Enrollments	Cluster_ID	Cluster Score
Alameda	1011	1	0.01
Alpine	3	4	0.65
Amador	49	4	0.33
Butte	59	4	0.17
Calaveras	12	2	0.76
Colusa	17	4	0.70
Contra Costa	506	1	0.21
Del Norte	6	4	0.45
El Dorado	54	1	0.91

- Counties with high cluster scores such as El Dorado, Calaveras are well inside their corresponding cluster zone and close to the centroid.
- Counties with low score such as Alameda, Butte fall at the overlapping region of neighboring clusters and are away from the centroid of the cluster.



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4. GET the prediction output results

Get the prediction results output:

- Open the csv file in Ikigai to get the dataset id from the url.
- Use the GET api call to retrieve data from the api-end point https://api.ikigailabs.io/pypr/get-dataset-download-url?dataset_id={dataset_id}
- The API response would be the prediction results in raw json format.

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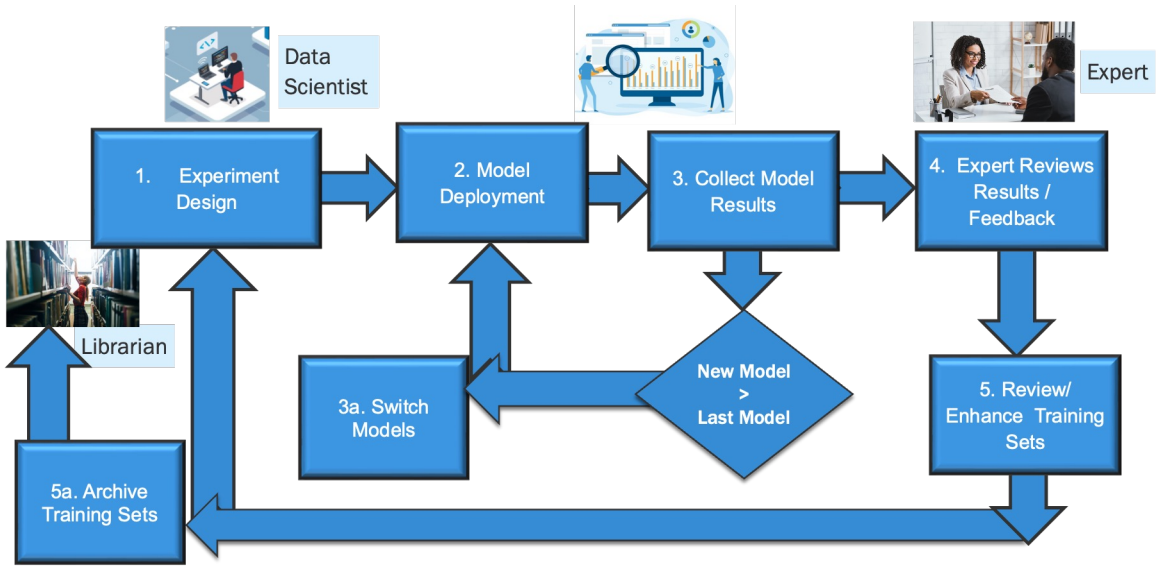
9. Step 7 - Optimize Model



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10. Summary and Next Steps