

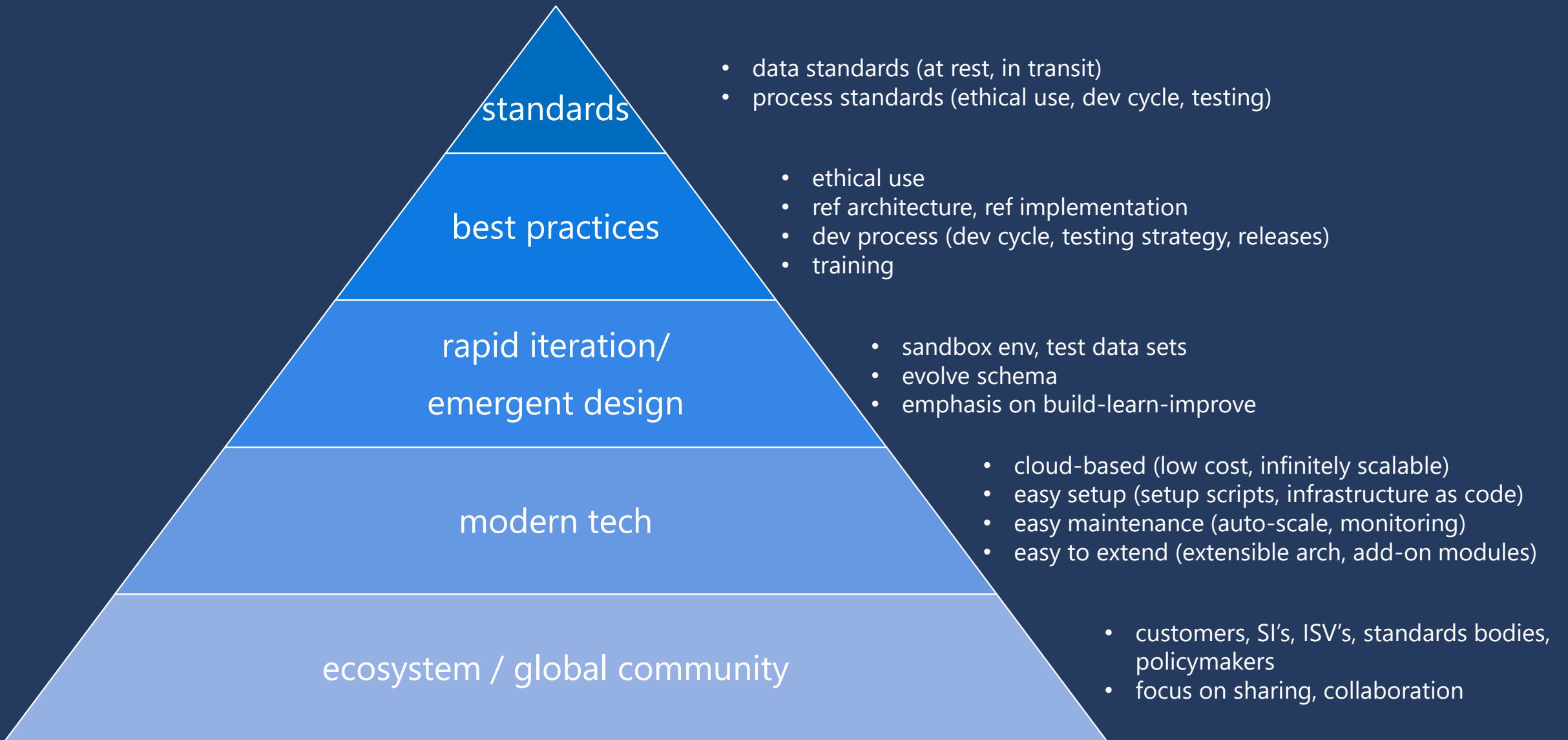


Open Education Analytics

modern data estate for education



Solving the problem...



What is Open Education Analytics



OPEN EDUCATION
ANALYTICS
TECHNICAL
RESOURCES AND
COMMUNITY



ROLE AND TECH
TRAINING AND
CAPACITY-BUILDING
ON LEARNING
ANALYTICS AND AI



PRINCIPLES OF
RESPONSIBLE
DATA AND AI
APPLIED TO
EDUCATION



SHARED
LEARNING
ANALYTICS AND
AI USE CASES IN
COMMUNITY

Data Engineers



Data Scientists



Contracted Data Scientists



Analysts



Learners, Educators



School Leaders, Researchers



1) Authentication/Authorization



Azure Active Directory

2) Data Processing Tools



Azure Synapse Analytics

3) Storage



Azure Data Lake Storage



On-premises data



Cloud data



SaaS data



Personalized Learning Pathways



Realtime Data Dashboards



Open Data for Research and Evaluation

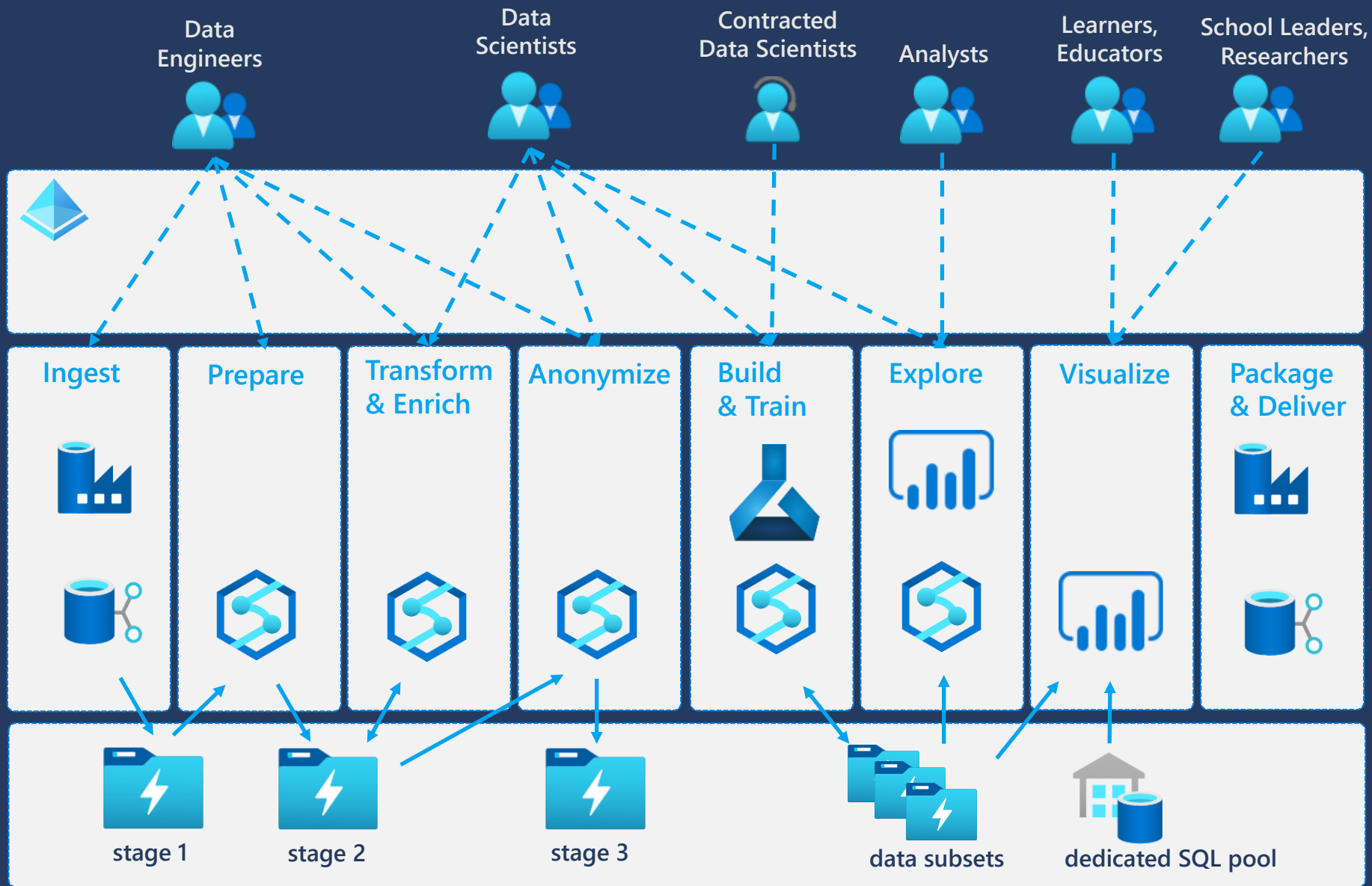


State, Province and National Reporting

1) Collect

2) Compute

3) Communicate



1) Collect

2) Compute

3) Communicate

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microsoft / OpenEduAnalytics

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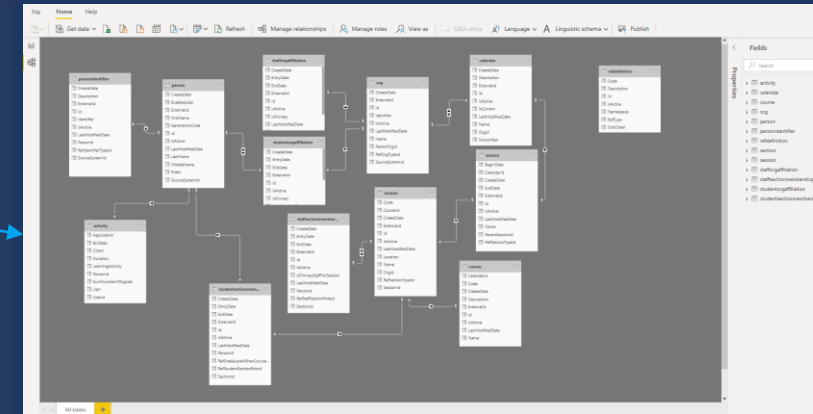
main 2 branches 2 tags

genegc Merge branch 'main' of https://github.com/microsoft/OpenEduAnalytics b009e63 5 days ago 115 commits

| File | Commit Message | Time |
|--------------------|-----------------------------------|--------------|
| .vs | add to readme | 4 months ago |
| docs | Add files via upload | last month |
| modules | Update readme.md | 10 days ago |
| packages | updated setup scripts. | last month |
| CODE_OF_CONDUCT.md | Initial CODE_OF_CONDUCT.md commit | 7 months ago |
| CONTRIBUTING.md | Create CONTRIBUTING.md | last month |
| LICENSE | Initial LICENSE commit | 7 months ago |

```

1 # Process Roster data from stage 1 to stage 2
2 #
3 # Sets up the edu_d1 (stage 2 data lake) with whatever data is found in the DIP inbound folder.
4 # This includes:
5 # - adding column names
6 # - casting values into a schema
7
8 # Calendar
9 df = spark.read.csv(stage1_path + '/Roster/Calendar.csv', header='false')
10 if (df.count() > 0):
11     sqlContext.registerDataFrameAsTable(df, 'Calendar')
12 df = spark.sql("select _c0 Id, _c1 Name, _c2 Description, cast(_c3 as int) SchoolYear, cast(_c4 as int) as Date")
13 df.write.format("parquet").mode("overwrite").save(f'{stage2_path}/Calendar')
14
15 # Course
16 df = spark.read.csv(stage1_path + '/Roster/Course.csv', header='false')
17 if (df.count() > 0):
18     sqlContext.registerDataFrameAsTable(df, 'Course')
19 df = spark.sql("select _c0 Id, _c1 Name, _c2 Code, _c3 Description, _c4 ExternalId, to_timestamp(_c5
  
```



Microsoft

Open Edu Analytics Implementation Guide

Published October, 2020

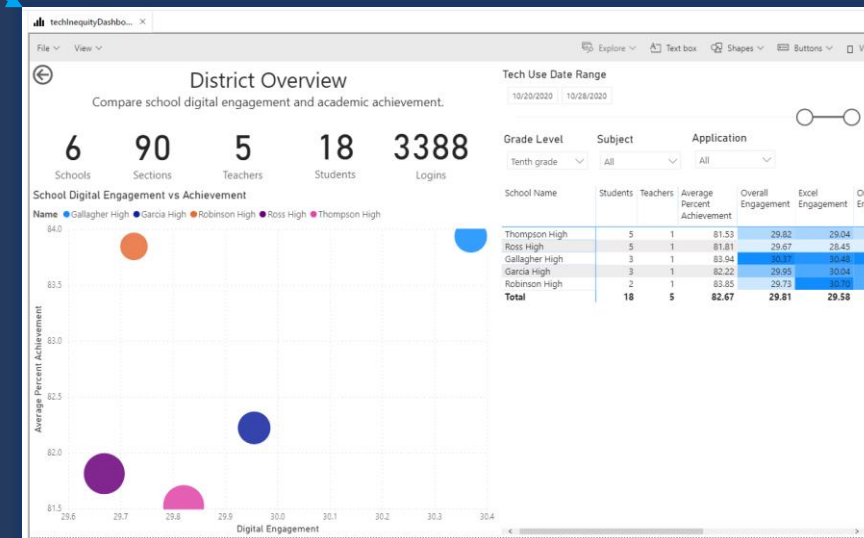
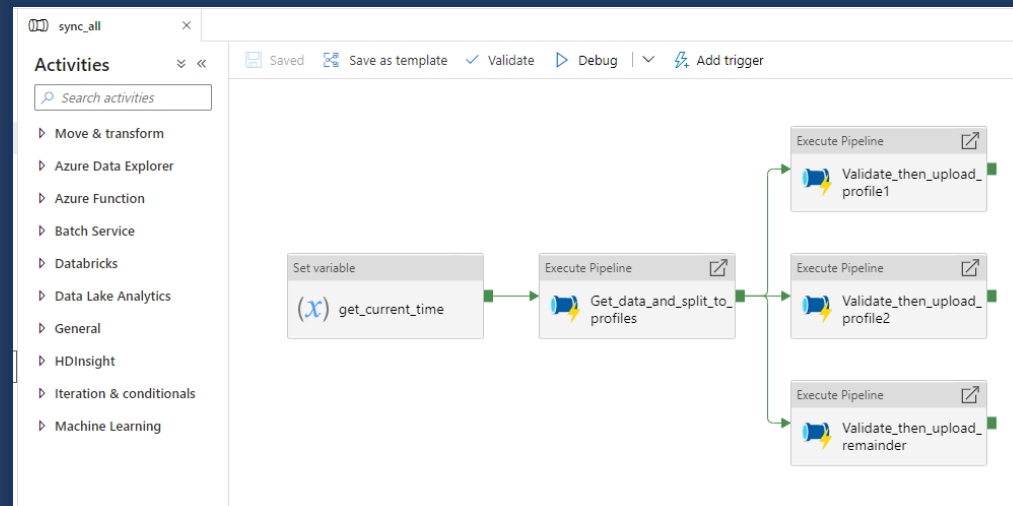
Introduction 1

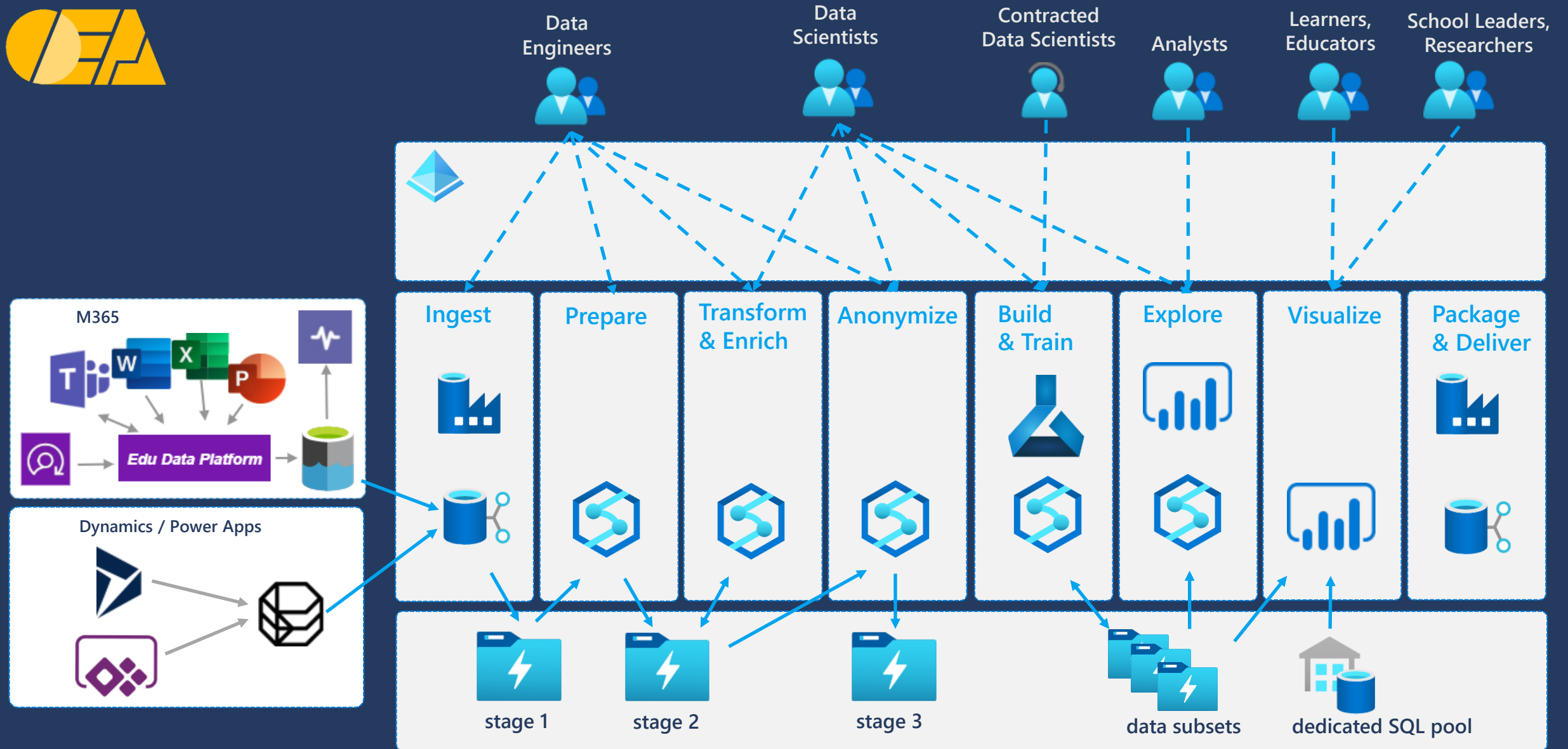
1) Setup Data Share in School Data Sync..... 1

2) Setup Resources in Azure Portal..... 2

3) Setup Synapse..... 5

4) Setup Power BI..... 7



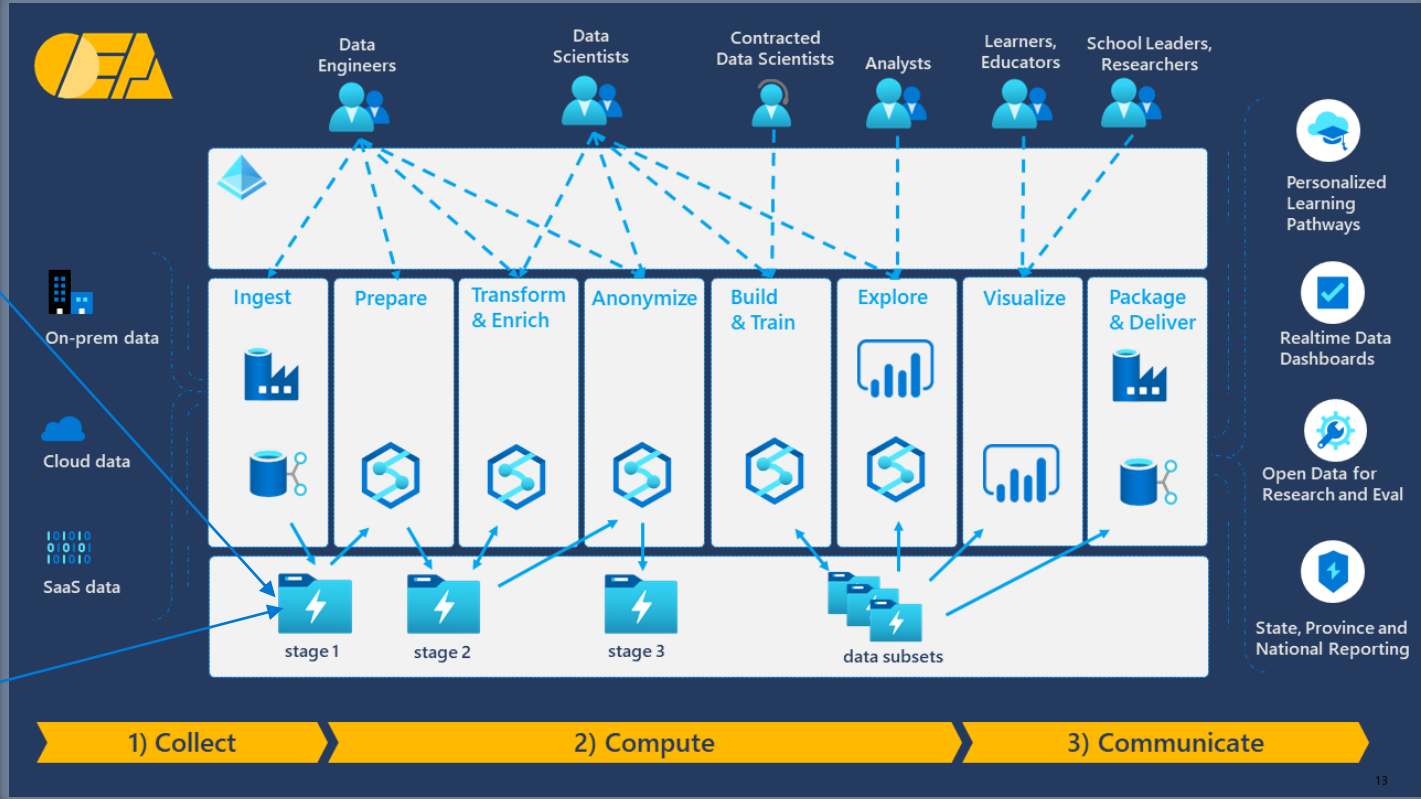
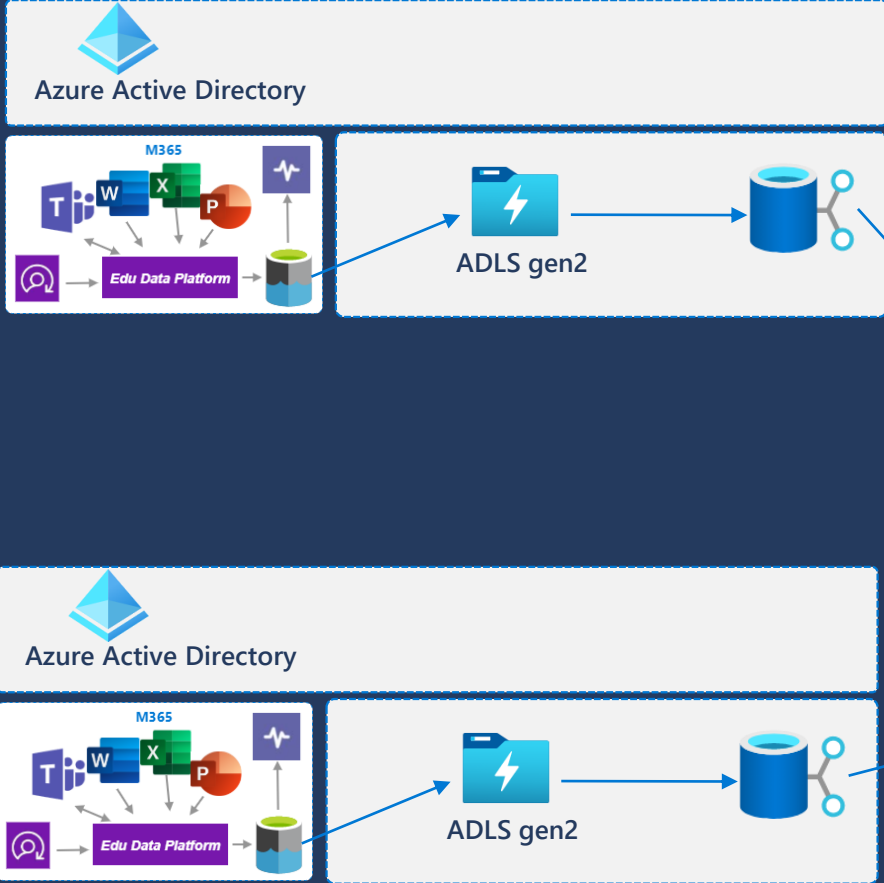


1) Collect

2) Compute

3) Communicate

Multi-tenant architecture



Demo

The screenshot shows the Microsoft Azure Synapse Analytics workspace interface for the workspace named **syeduanalyticscisd3b**. The interface includes a left-hand navigation pane with the following options: Home, Data, Develop, Integrate, Monitor, and Manage. The main content area displays the workspace name and a **New** button. Below this, there are three primary action cards: **Ingest** (Perform a one-time or scheduled data load.), **Explore and analyze** (Learn how to get insights from your data.), and **Visualize** (Build interactive reports with Power BI capabilities.). At the bottom, a **Recent resources** section contains a table listing recently accessed files.

| Name | Last opened by you |
|------------------------------|--------------------|
| M365_setup_and_update | 41 minutes ago |
| techInequityDashboardContoso | 41 minutes ago |