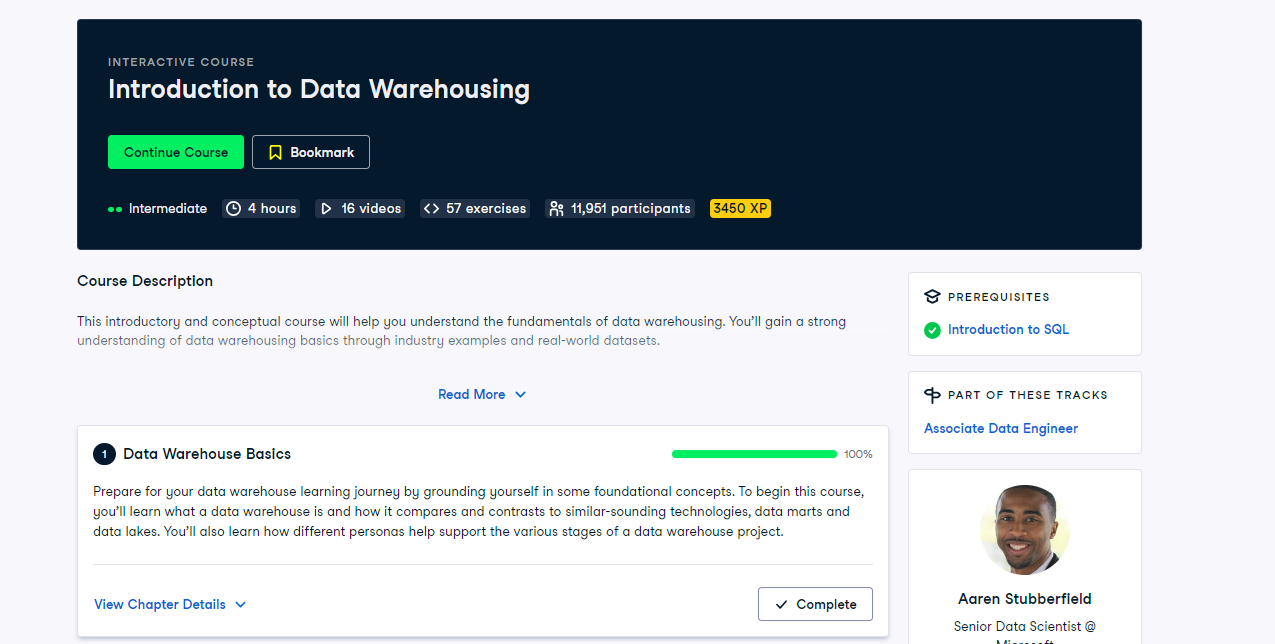
1a.

1b.

Core concepts of data warehouses:

-it gathers data information from multiple sources

-it holds only structured data

-it is able to hold more than 100 GB of data , which is massive

1c.

Data warehouse benefit:

* Greatly centralized source of information containing all data with determined usage.
* In business setting such system enables to perform data analysis and trend identification. Thus, business can better adjust the products to the user’s needs or increase revenue in other aspects

Data warehouse drawback:

* Lack of flexibility because data warehouse can only contain structured data for which purpose is known, which could be very limiting if business does not know how to work with data initially
* In a professional company setting, a lack of flexibility could be a significant downside if a company wants to gather audio data from users and, upon that, identify trends or patterns to increase revenue. Unfortunately, this is not viable in data warehouses, which are limited to structured data only.

2a.

Normalised schemas:

-Data Integrity

-Reduced Data Redudancy

-Optimized Usage on Disk Space

Denormalised schemas:

-Faster data retrieval

- Suited for OLAP

- Small number of tables required

2b.

I would choose Normalised Schema for OLTP data where I emphasize the importance of fast data insertion, update or deletion. For instance, change of user’s password upon his request. Moreover, Normalised Schema provides clear data division into small pieces. Therefore, it is easier to manage and handle potential data inconsistencies or anomalies.  On the other hand, Denormalised Schema have significant meaning in OLAP, where data analysis plays vital role. For that reason, Denormalised Schema focus on storing all data in large tables. Therefore, this improves performance and helps with data retrieval processes. However, this comes at the expense of data integrity and data redundancy.

3a. A screenshot of a computer

Description automatically generated