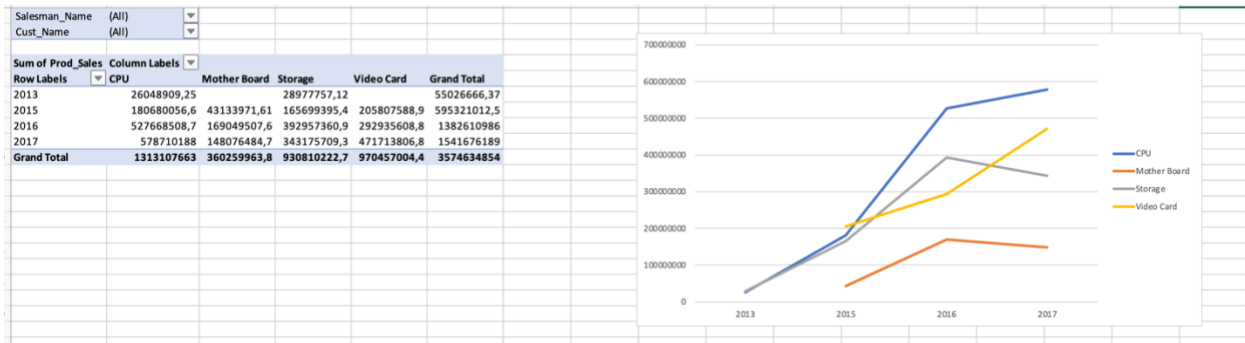


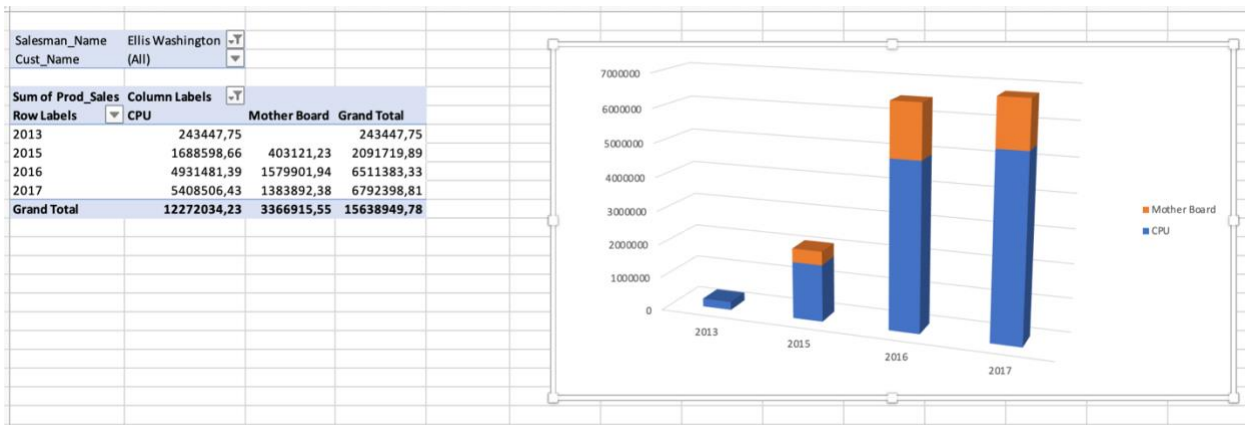
Name: Ngọc Phương Trang Duong
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Task 9.1P

Question 1:



Question 2:



Question 3:

Camberwell Library is a community library located in the Boroondara area, Victoria, Australia. The library offers various community services, including book lending, online services, event organization, and learning resources for students and research groups.

Camberwell Library's main business activities include:

- **Book Lending:** Members can borrow books and research materials.
- **Online Services:** Provides services for borrowing books and materials online.
- **Event Organization:** The library organizes events like book clubs, seminars, and other community activities.
- **Learning Resources:** The library provides educational materials for students and research groups.

Camberwell Library collects various types of data to support its operations:

1. Member Data:

- Includes Member ID, name, email, phone number, address, join date, and membership type (e.g., student, adult, senior).

2. Book Data:

- Includes Book ID, title, author, genre, publisher, publication year, and availability status (e.g., available, borrowed).

3. Loan Data:

- Includes Loan ID, Member ID, Book ID, loan date, return date, and status (e.g., returned, borrowed).

4. Event Data:

- Includes Event ID, event name, event date, time, location, organizer, and event description.

5. Staff Data:

- Includes Staff ID, name, role (e.g., librarian, event manager, support staff), email, and phone number.

Camberwell Library uses data and Business Intelligence (BI) tools like Power BI and Tableau to optimize its operations, enhance customer experience, and improve revenue and productivity.

Analyzing Book Loan Data:

- The library analyzes book loan data to identify popular book genres and titles, which helps improve the book collection strategy. For example, if history and social science books are in high demand, the library can increase investments in these genres. This data can be visualized using Power BI to track trends in book popularity over months, allowing the library to adjust its book acquisition strategy accordingly.

Optimizing Event Planning:

- The library uses event data to evaluate the effectiveness of past events. This information helps the library plan more relevant events for the community. Tableau can be used to analyze event attendance data, allowing the library to improve marketing strategies or alter event content to better match the community's needs.

Improving Member Experience:

- Member data allows the library to analyze borrowing habits and event participation. By categorizing members based on factors like age and membership type, the library can offer personalized services such as special promotions or event notifications tailored to specific groups. This data can be analyzed to generate custom reports on potential member groups, helping to improve customer service strategies and increase member loyalty.

Enhancing Operational Efficiency and Reducing Costs:

- Data on book loan statuses helps the library track overdue books and identify bottlenecks in the loan process. It can also optimize the timing for book returns or acquisitions to reduce costs and improve resource usage. Power BI can be used to generate detailed reports on loan statuses, helping the library make informed decisions on book management and operations.

Through the use of data and BI tools, Camberwell Library can optimize its operations, improve the customer experience, and gain a competitive edge. BI tools enable the library to make data-

driven decisions, which, in turn, help increase revenue and enhance productivity. The use of data and BI tools is essential for streamlining operations and providing better services to the community.