Individual Assignment 2

Part (b)

	Business Question	Data	Predictive Analytics (Recommender System)	Business Action	Business Outcome
1	How can a hotel increase revenue from ancillary services?	Transaction data from hotel guests, including room service orders, spa bookings, and activity sign-ups. https://www.kaggle.com/datasets/ahsan81/hotel-reservations-classification-dataset-	Recommender System (e.g., Association Rules)	Create tailored service packages or offer discounts on complementary services at check-in or during online booking.	Increased uptake of ancillary services, enhancing guest experience and boosting overall revenue.
2	How can a supermarket optimize its layout to improve shopping efficiency and increase purchases?	Customer purchase data along with the path taken through the store, gathered through shopping cart GPS tracking. https://www.kaggle.com/datasets/marian447/retail-store-sales-transactions	Recommender System (e.g., Association Rules)	Rearrange store layouts to place frequently associated items near each other and in the path of high foot traffic areas.	Improved customer satisfaction due to easier shopping experiences, increased sales from impulse buys, and more efficient movement within the store.
3	How can a fitness app provide personalized workout and nutrition plans that enhance user retention?	User data including workout routines, dietary logs, and progress metrics. https://www.kaggle.com/datasets/niharika41298/gym-exercise-data	Recommender System (e.g., Association Rules)	Offer personalized workout and nutrition recommendations based on what has worked well for similar users.	Increased user engagement and retention as users see better results through customized plans that effectively address

				their fitness goals.