

# Cloud-Native Analytical Pipeline

The name of our product is Cloud-Native Analytical Pipeline and is a real-time scalable product that enables a faster intelligent decision-making process for retail businesses by eliminating the latency gap between data engineering and business analysis through processing real-time data and extracting timely insights. Moreover, it delivers key insights to answer specific business problems based on brand popularity, purchase behaviors, and customer details. This product provides an affordable easy-to-use service for better operation on successful deliveries/purchases and a delightful customer experience for the growth of the retail businesses. The scalability of the service enables businesses to store millions of data in a database considering the change in volume of data based on seasonality or long weekends for timely delivery of the item/product. The time-sensitive data is processed immediately in real-time to eliminate the delay in operations for a positive customer experience. Moreover, batch data processing can be done for the historical data to gain impactful business insights to optimize the item/product delivery process for the business. Our product helps to solve key business questions after simulating the logs of user purchases, product views, cart history, and the user's journey. Using insights on customer details businesses can determine the number of unique visitors per day during a certain time to increase the purchase conversion rate, analyze customer behavior reports on when users add products to their carts but don't buy them to avail sponsored ads on an item, and Top categories per hour or weekday to promote discounts based on trends for higher sales. Finally, the brand popularity to know which brands need more marketing for higher reachability of the products converting to purchases to increase the overall revenue of the business.

**Team - 6**

**Group Members:** Fengze Han, Juan Lavender, Shraddha Tiwari, Vineesha Devathi, Tejas Dhomne Wanghzen Yu  
**BADM 590 – Big Data Infrastructure**