**Project Report**

**Customer Intent Prediction & Pattern Discovery for e-Commerce Businesses**

**TEAM 3**

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**Here are observations and analysis about each transaction based on the provided data:**

Output:

{1 item

"Results":{1 item

"WebServiceOutput0":[3 items

0:{21 items

"Administrative":int0

"Administrative\_Duration":int0

"Informational":int0

"Informational\_Duration":int0

"ProductRelated":int1

"ProductRelated\_Duration":int0

"BounceRates":float0.2

"ExitRates":float0.2

"PageValues":int0

"SpecialDay":int0

"Month":string"Feb"

"OperatingSystems":int1

"Browser":int1

"Region":int1

"TrafficType":int1

"VisitorType":string"Returning\_Visitor"

"Weekend":boolfalse

"Revenue":boolfalse

"Assignments":int0

"DistancesToClusterCenter no.0":float7.382983113757291e-15

"DistancesToClusterCenter no.1":float1.0000000000000075

}

**1. Transaction 1:**

* The user did not engage in any administrative or informational activities.
* The user visited 1 product-related page.
* The user spent some time on the product-related page.
* Bounce rates and exit rates are non-zero, indicating some engagement but potential for improvement.
* The user did not generate any revenue.

1:{21 items

"Administrative":int0

"Administrative\_Duration":int0

"Informational":int0

"Informational\_Duration":int0

"ProductRelated":int2

"ProductRelated\_Duration":int0

"BounceRates":int0

"ExitRates":float0.1

"PageValues":int0

"SpecialDay":int0

"Month":string"Feb"

"OperatingSystems":int2

"Browser":int2

"Region":int1

"TrafficType":int2

"VisitorType":string"Returning\_Visitor"

"Weekend":boolfalse

"Revenue":boolfalse

"Assignments":int0

"DistancesToClusterCenter no.0":float7.382983113757291e-15

"DistancesToClusterCenter no.1":float1.0000000000000075

}

**2. Transaction 2:**

* Similar to Transaction 0, the user did not engage in administrative or informational activities.
* The user visited 2 product-related pages.
* The user spent some time on the product-related pages.
* Bounce rates are zero, indicating no immediate exit from the website.
* Exit rates are low, suggesting good engagement.
* The user did not generate any revenue.

2:{21 items

"Administrative":int0

"Administrative\_Duration":int0

"Informational":int0

"Informational\_Duration":int0

"ProductRelated":int1

"ProductRelated\_Duration":int0

"BounceRates":float0.2

"ExitRates":float0.2

"PageValues":int0

"SpecialDay":int0

"Month":string"Feb"

"OperatingSystems":int4

"Browser":int1

"Region":int9

"TrafficType":int3

"VisitorType":string"Returning\_Visitor"

"Weekend":boolfalse

"Revenue":boolfalse

"Assignments":int0

"DistancesToClusterCenter no.0":float7.382983113757291e-15

"DistancesToClusterCenter no.1":float1.0000000000000075

}

]

}

}

**3. Transaction 3:**

* Similar to Transaction 0 and 1, the user did not engage in administrative or informational activities.
* The user visited 1 product-related page.
* The user spent some time on the product-related page.
* Bounce rates and exit rates are non-zero, indicating some engagement but potential for improvement.
* The user did not generate any revenue.

**Conclusion:**

* The user visited more product-related pages compared to Transactions 0 and 2, indicating higher interest.
* Bounce rates are zero, suggesting users didn't leave the website immediately after visiting.
* Exit rates are relatively low, indicating good engagement.
* However, none of the transactions resulted in revenue generation.