

Adventure Cycling Association

Oracle Database Driven Project

Adventure Cycling Association is a non-profit member organization focused on travel by bicycle (bicycle touring). Headquartered in Missoula, Montana, Adventure Cycling develops cycling routes, publishes maps, provides guided trips, and advocates for better and safer cycling in the U.S. The organization grew from a mass cross-country bicycle ride in 1976

to celebrate the U.S. Bicentennial. Adventure Cycling also publishes a magazine, Adventure Cyclist.

Adventure Cycling celebrated its 40th anniversary in 2016 by hosting the Montana Bicycle Celebration in Missoula, promoting events like Bike Your Park Day and Bike Travel Weekend, and publishing its first-ever coffee table book, America's Bicycle Route: The Story of the Trans America Bicycle Trail.

Origins: Adventure Cycling Association was founded in 1973 as Bike centennial by Dan and Lys Burden and Greg and June Spiel during the couples' Hemi Stour bicycle ride from Anchorage, Alaska, to Tierra del Fuego, Argentina. They planned Bike centennial as a cross-country bicycle ride to celebrate the bicentennial of the United States. More than 4,100 cyclists took part in the event, riding all or part of the coast-to-coast, 4,250 miles (6,840 km) Trans America Bicycle Trail during the summer of 1976. Once the event was completed, Bike centennial lived on as a 501 non-profit member organization to serve the needs of traveling cyclists, developing more bicycle routes and publishing maps. In 1974, Bike centennial began publishing Bike Report magazine, which later became Adventure Cyclist when the organization changed its name to Adventure Cycling Association in 1993.

Overview: Adventure Cycling's mission is "to inspire, empower, and connect people to travel by bicycle." Its membership has grown to over 50,000 members, and its route network is one of the largest in the world, encompassing over 50,000 miles (80,000 km).^[3] Adventure Cycling is also leading the development of the [U.S. Bicycle Route System](#), which when complete will offer more than 50,000 miles (80,000 km) of routes for cyclists.

Adventure Cycling's headquarters are located in Missoula, Montana, in the northern Rocky Mountains. Many traveling cyclists make a point of riding through Missoula, where they stop at Adventure Cycling to enjoy free ice cream, catch up on email, ask advice, and get a tour of the building. Many cyclists also have their photos taken, and some end up in Adventure Cycling's National Bicycle Touring Portrait Collection.

The overall goal is to increase the sales and keep a track of the inventory of Sales, Products, and Products Categories & Subcategories. We have seen a spike in our customers Enrolment. As a part of the database management, we would like to perform certain operations on the historic data to understand the sales for the year of 2015.

Tables:

- 1) Calendars
- 2) Customers
- 3) Products
- 4) Product Subcategory
- 5) Category
- 6) Sales
- 7) Territories
- 8) Returns

Note: You will be creating data based on the data that is provided to you. Along which you will need to apply the relations based on the following information that will shared to you.

Fields Information:

Customer: This table contains information about all the customers who have purchased goods from Adventures.

- CustomerKey: This is the Unique key in Customer Table
- Prefix: A title used before a person's name.
- First Name: Name of the customer.
- Last Name: Last name of the customer.
- Birth Date: Customer DOB information.
- Marital Status: If customer is married or single.
- Gender: Gender of customer
- Email Address: Customer personal email address
- Annual Income: Annual Income of the customer.
- Total Children: No of children in the family.
- Education Level: Education information of the customer.
- Occupation: Type of job done by the customer.
- Home Owner: If the customer own any property of its own.

PRODUCT CATEGORY:

- Product Category Id: It is the Unique ID of the table.
- Product Name: Name of the product.

PRODUCT:

- ProductKey: It's a unique key of a product.
- ProductSubcategoryKey: It is referencing the column Product Subcategory Key from Product Sub Category Table.
- ProductSKU: Product sudo name
- ProductName : Product Name Information
- ModelName : Model Name of the product
- ProductDescription: Description of the product developed.
- ProductColor: Color of the product
- ProductSize: Size of the product
- ProductStyle: Product Style information
- ProductCost: Cost of the product
- ProductPrice : Price for the product.

PRODUCT SUB CATEGORY:

- PRODUCTSUBCATEGORYKEY: It is the unique of the table.
- SubcategoryName : Defines the Sub category name of the product
- Product Category Key: It refers to the column Product Category Id from product category table(Foreign Key)

RETURNS:

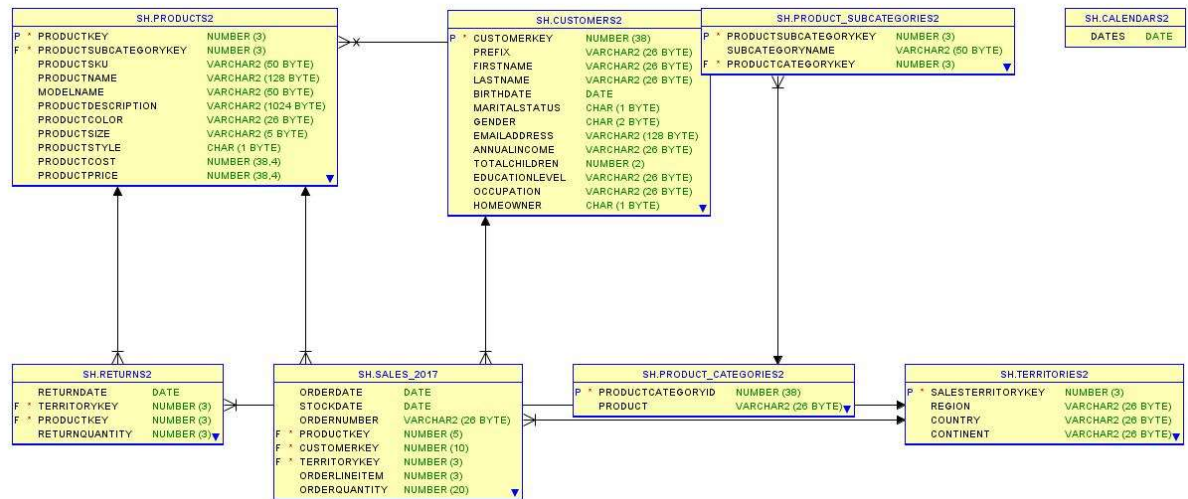
- RETURNS: The day when the product was return.
- TERRITORYKEY: Refers to the column Sales Territory Key in Work Territories Tables.
- Product Key: Refer to the key from product table.
- RETURN QUANTITY: Refers to the Quantity of product returned

SALES:

- OrderDate: The day order was placed.
- StockDate: Refers to the stock present in warehouse for the given date.
- OrderNumber: Order number for each order to be shipped to customers.
- ProductKey : Refers to the column Product Key from the product table.
- CustomerKey: Refers to the column Customer Key from the Customer table.
- TerritoryKey: Refers to the column SALES Territory Key from the Work Territories Table.
- OrderLineItem: On what production line the product was built.
- OrderQuantity: Quantity of the product ordered.

TERRITORIES:

- SALESTERRITORYKEY: It is the Unique key defined for each region
- Region: Directions information
- Country: Refers to which country the product or sales are accomplished.
- Continent: Basic Information.



- 1) Extract the Month, Day & Year I three different columns in Calendar Table. If Table not created please create the table based on the file received.
- 2) Create a new column in Cutomer Table and as Full Name and let it have values from Prefix, First Name & Last Name.
- 3) Write a query to find out the number of customer who are married.
- 4) Replace the (\$,) values from Annual Income and put the values in a new column that is Salary as numeric field.
- 5) Write a query to find out how many customers have 0 kids.
- 6) Give Bonus to the following customer occupation. For other O

Professional	50000
Clerical	10000
Management	25000
Manual	2000

- 7) Give me a count of customers who have their own property.
- 8) Write a SQL Query to find out the Customer Last Name starts with 'RA' & FIRST Name ending with 'DA'and ensure there is no duplicate records seen when the output is displayed.
- 9) Write a query to display the sales for the order date 03/21/2017 for product key 540.
- 10) Write a SQL Query to increase the cost of products by 18% and round the data to the nearest number.
- 11) Adventure work Head of sales would like to find out the cost difference between productcost and product price.
- 12) Write a SQL Query to find out, which products were not, returned (Use tables Product & Returns) solve the query without 'not in' function.
- 13) Write a query to find out which customer has placed most number of sales.
- 14) Write a SQL Query to find out the products returned for Region Germany.
- 15) Adventure works have decided to change the product colour for a few of their products along which with their product size. Following is the information.

COLOR	New color
RED	BLACK
NA	BLUE
MULTI	YELLOW

PRODUCT SIZE	NEW SIZE
0	LARGE
XL	MEDIUM
ALL OTHERS	SMALL

- 16) Write a sql query to find out the customers that have at least one sale from Northwest region of America.
- 17) Write a SQL Query to find out which customer has more than one order quantity.
- 18) Write a query to find out in which region the following sub category Road Bikes, Mountain Frames are sold and by which customer. Use CTE
- 19) Write a SQL Query to find out which products were returned.
- 20) Write a query to add a new column in customers table as username and get the values from email field. Fetch all the values before @ symbol. Update the new field with the values populated your query.
- 21) Write a SQL Query to find get a report for the following
 - a) List of all customers
 - b) Sales done by each customer
 - c) Product owned by each customer
 - d) Name of the Product Sub category
 - e) Products, which were returned.
- 22) Write a SQL Query using Sub-select to get the count of all table.
- 23) Write a SQL Query to find out which customer has 3rd highest salary using common table expression.
- 24) Write a query to replace the Gender value NA to Null.
- 25) Give the following syntax(Need all the syntax we can do with Alter statement)
 - Alter
 - Delete
 - Update
 - Create
 - Insert
- 26) Full form of SQL
- 27) How to apply Primary Key & Foreign Key using Alter statement
- 28) Share all your scripts which you used to define relationship to create the above mentioned database.

