Team Name : Three musketeers

Problem Statement : Hyper-personalised ads using customer behaviour data

Brief about the Idea:

Each product holds unique value for individuals, for example how you would advertise an ice cream to a kid would be different to an adult. However, manually creating diverse ads for varied user interests is impractical and financially unsustainable.

We aim to leverage GenAI to develop personalized ads, empowering businesses to target a diverse customer base more effectively. By tailoring advertisements to individual preferences and behaviors, we seek to enhance engagement and optimize marketing efforts, ultimately maximizing business success through increased relevance and customer satisfaction.

Opportunity :

Currently, marketing strategies rely on diverse creatives to raise brand awareness. However, they often struggle to resonate with a significant portion of their customer base due to varying interests and needs.

In contrast, our innovative approach harnesses AI to customize advertisements for each individual based on their specific behavioural data. This involves analysing a customer's past interactions, browsing habits, and purchase preferences. By dynamically adjusting ad content and creatives according to these insights, our system enables companies to deliver personalized marketing on a large scale. This not only fosters stronger connections with customers but also has the potential to improve campaign performance by enhancing relevance and engagement.

List of features offered by the solution :
1. Hyper-personalize images for each customer
2. Hyper-personalize texts for each customer
3. Data Governance enforced on customer data ensuring the privacy and integrity of the data.
4. Enforcing image governance to ensure that the image generated follows the companies' guidelines for the ad creatives.

An example of how the application would work

Imagine a travel company trying to sell a package of Kashmir to different customer profiles, they want the customers to feel the connected to the campaign and send out e-mails tailored to their specific persona.

Let's look how our solution would work for 2 different customer profile

Profile 1: Bachelor male, age 25-30, adventurous

- **Email example to be sent**

Subject: Embark on the Adventure of a Lifetime in Kashmir!

Hey [Name],
Hope this email finds you well! 🏞️
Are you ready for a **thrilling escape into the heart of adventure**? Imagine exploring the breathtaking landscapes of Kashmir, where every corner is a new chapter in your adventure story.
Our exclusive tour package is tailored just for you - a 25-30-year-old with a **passion for adrenaline-packed** experiences. From majestic mountains to serene lakes, Kashmir has it all. Brace yourself for exhilarating activities like trekking, water sports, and more.
Why choose our tour?
✨ Handpicked destinations for the ultimate adventure
✨ Personalized experiences that match your daring spirit
✨ Expert guides ensuring a safe and unforgettable journey
Don't miss out on this opportunity to make memories that will last a lifetime. Seize the moment and let the adventure begin!
Ready to embark on the journey of a lifetime? Click [here] to explore our Kashmir Adventure Tour package.
Feel free to reach out if you have any questions or need more details. We can't wait to make your adventure dreams come true!

Best regards
 [Your Company]

Profile 2: Married man, with spiritual interests, age 25-30

- **Email example to be sent to the person**

Subject: Discover Spiritual Serenity in Kashmir - A Journey for Two Souls

Hello [Name],

Trust this email finds you both in great spirits. 🌺

We invite you and your beloved wife on a unique journey to explore the divine beauty of Kashmir. **Immerse yourselves in the tranquility of sacred sites, picturesque landscapes**, and the rich cultural heritage that Kashmir has to offer.

Why choose our tour?

🛕 Spiritual retreats at iconic religious sites

🏞 Breathtaking scenery to elevate your senses

👫 Tailored experiences for you and your partner

This tour is crafted for **souls seeking spiritual solace** and a connection with nature. From **enchanting mosques to serene gardens**, let Kashmir be the backdrop for your spiritual journey together.
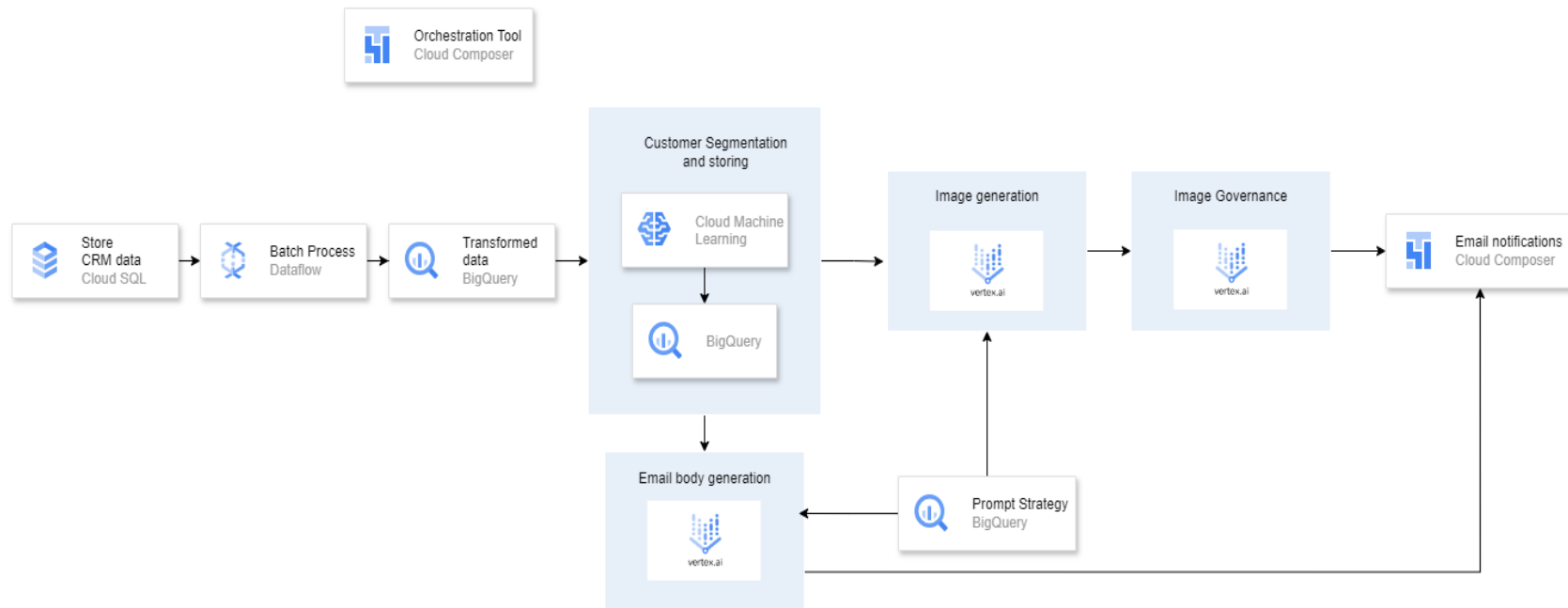
Ready to embark on this sacred adventure?

Click [here] to explore our Kashmir Spiritual Tour package.

Looking forward to being a part of your unforgettable journey!

Warm regards,

[Your Company]

Process Flow Diagram/Usecase Diagram:

Technology used :

1) Cloud SQL

2) Dataflow

3) BigQuery

4) VertexAI Training

5) VertexAI Prediction

6) Generative AI Support on Vertex AI Text

7) Generative AI Support on Vertex AI Image

8) Cloud Composer

Data Governance Policies Enforcement used :

- Align with GDPR, CCPA, and other regulations

- Obtain and manage customer consent

- Collect data based on necessity and project goals

- Anonymize or pseudonymize data to protect identities

- Conduct security audits and maintain incident response plans

- Enforce policies and adapt as necessary

Estimated cost of/after implementing the solution :

Monthly estimated cost for all the services –
* Cloud SQL(Storing 150 GiB) = $42.53
* Dataflow(n1-standard-1,running 1 hr per day) = $2.24
* BigQuery(100GiB) = $2.07
* VertexAI Training (5 training jobs per week, 2hrs Job length) = $3.32
* VertexAI Prediction (1modeltoserve,1hr per day, 5 days per week) = $1.66
* Generative AI Support on Vertex AI Text(1000requests per day) = $33.75
* Generative AI Support on Vertex AI Image(10 requests per day) = $6.45
* Cloud Composer (Small size env, 2 hrs per day, 5 days per week) = $ 29.34

Total cost /month = $119.29