Design & Develop Online Application For Retail

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Research Project Contents

- Develop online web application
- Information overload issue
- Recommendation system
  - Content-Based recommendation
    - Purchase history
  - Addition
    - Rating,
    - Visiting history,
    - Keyword search method

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- Develop online web application
- Information overload issue
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    - Purchase history
  - Addition
    - Rating,
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    - Keyword search method
- Interactive interface.
- Visualization of order processing.
- Online payment methods.
- Orders generator.

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- Affect to everyone that using internet.
- Obstacle user to reach desired product.

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- Assist user to reach product quicker.
- Increase chance of sale.
- Random items in the same category based on latest purchased product.

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    - Rating,
    - Visiting history,
    - Keyword search method
- Rating by other users.
- Page counter.

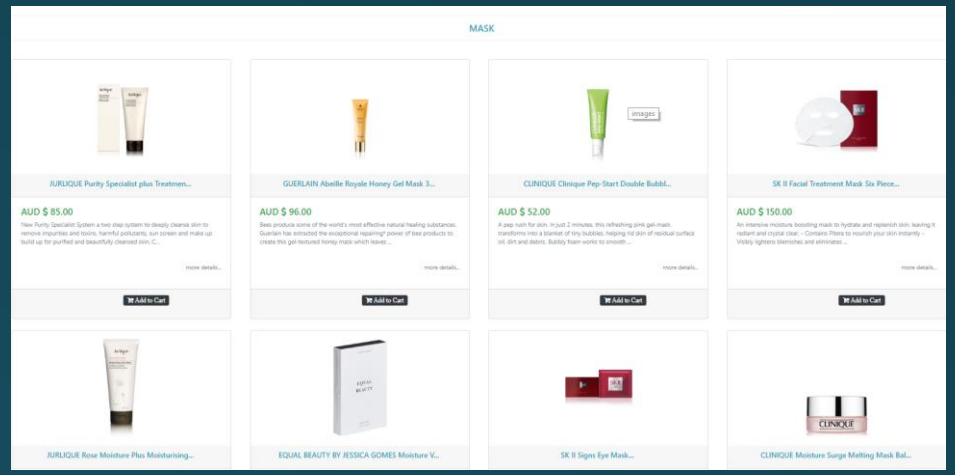
Prototype Features

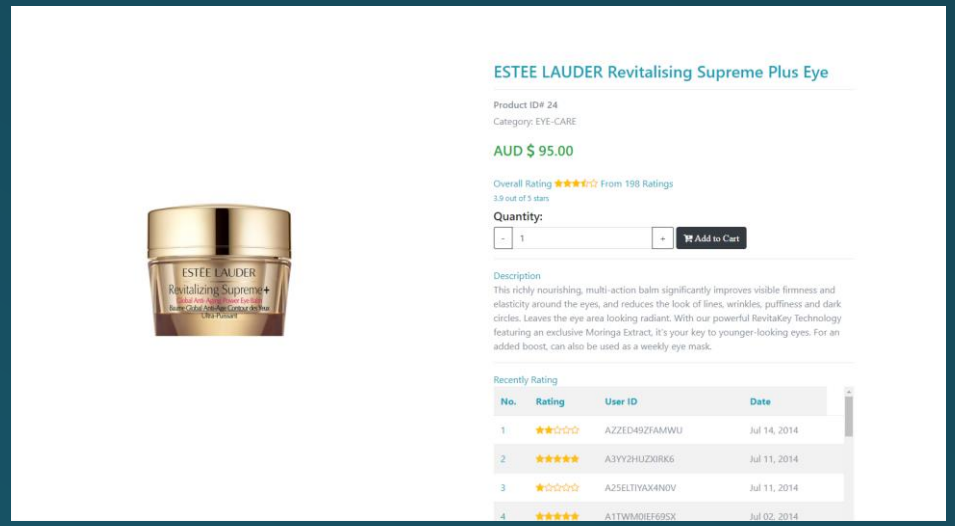
- Products
- Search function
- Recommendation System
- Cart
- Checkout
- Account
- Admin zone
- Etc.

Prototype Features

Products

- Catalogues
- Product details





Prototype Features

Products

- Database
- Products
- Category

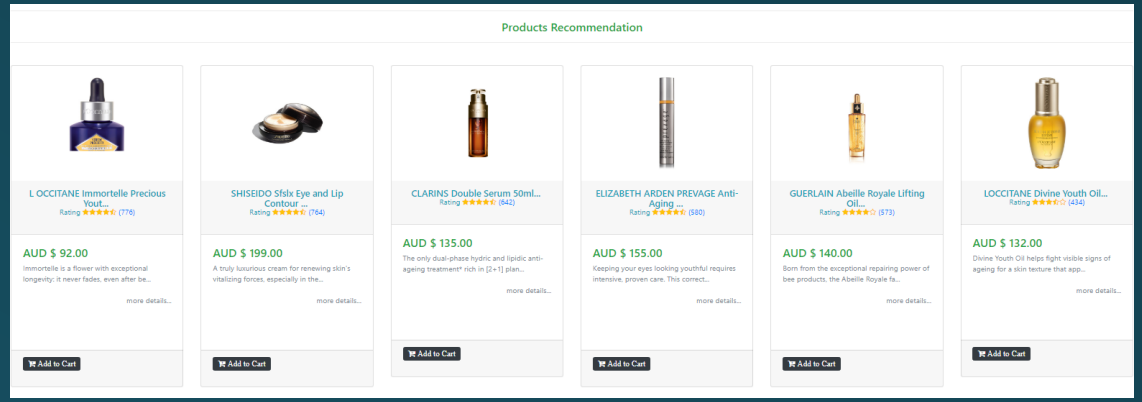
Name	Type
ProductID	varchar
ProductName	varchar
ProductDesc	text
CategoryID	int
Picture	text
Price	int

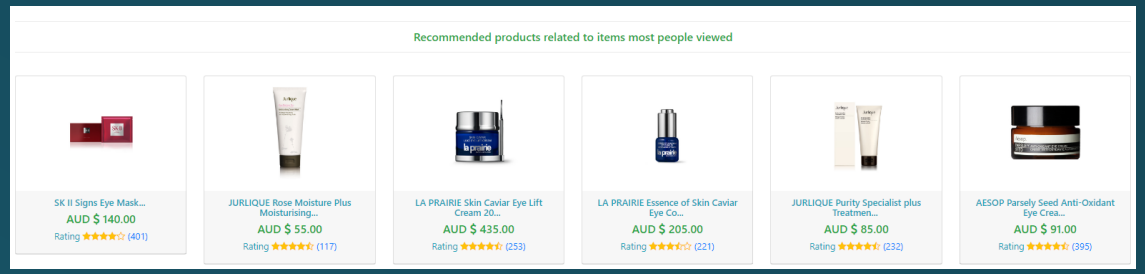
Name	Type
CategoryID	int
CategoryName	varchar
Description	varchar

Prototype Features

Recommendation System

- Purchase history
- Visiting history
- Rating





Prototype Features

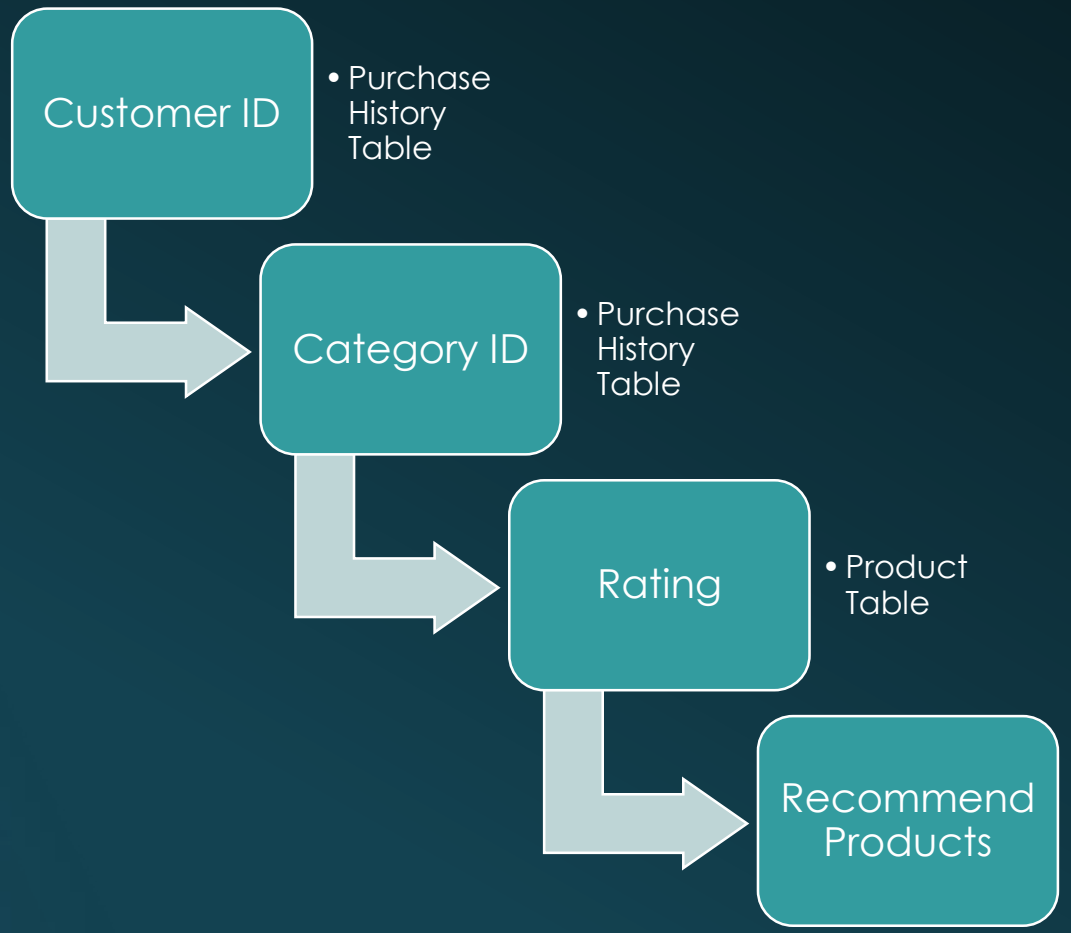
Recommendation System

- Purchase History
- Visiting History

Name	Type
OrderID	varchar
CustomerID	int
OrderQTY	int
OrderTotal	float
PaymentType	int
OrderDate	datetime
ShippingFirstName	varchar
ShippingLastName	varchar
ShippingAddress1	varchar
ShippingAddress2	varchar
ShippingCity	varchar
ShippingState	varchar
ShippingPostcode	varchar
ShippingCountry	varchar
ShippingEmail	varchar
ShippingTel	varchar

Name	Type
HistoryID	int
CustomerID	int
CategoryID	int
IPAddress	varchar
Visited_Times	int

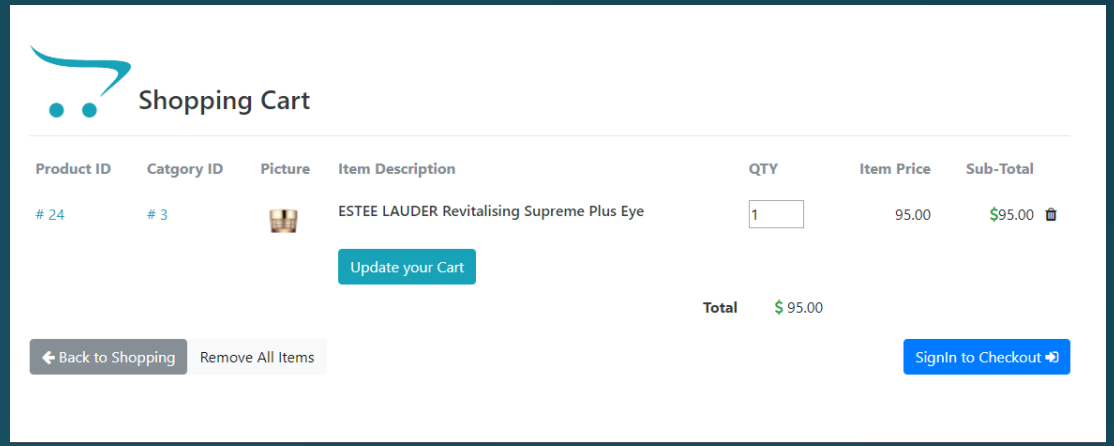
Recommendation System Algorithm



Prototype Features

Cart

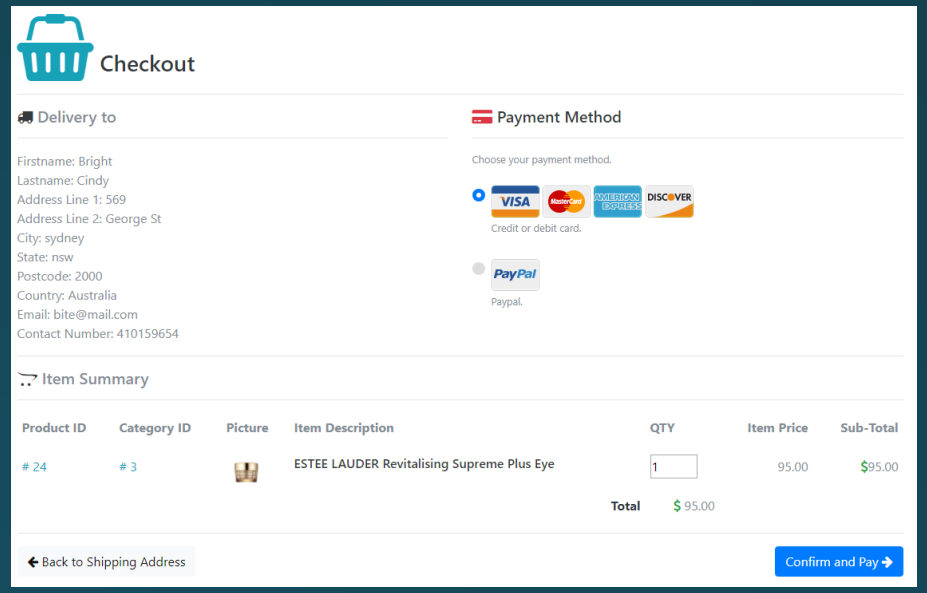
- Session

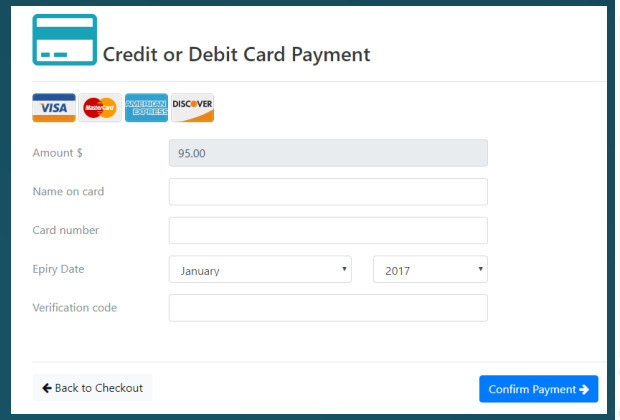


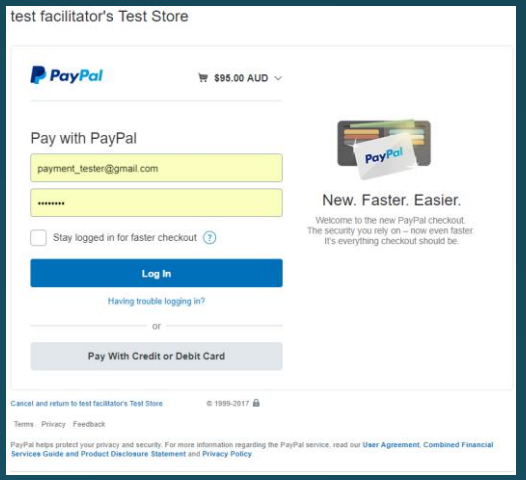
Prototype Features

Checkout

- Credit card payment method.
- PayPal payment method.
- Generate order detail.







Prototype Features

Checkout

- Credit card payment method.
- PayPal payment method.
- Generate order detail.

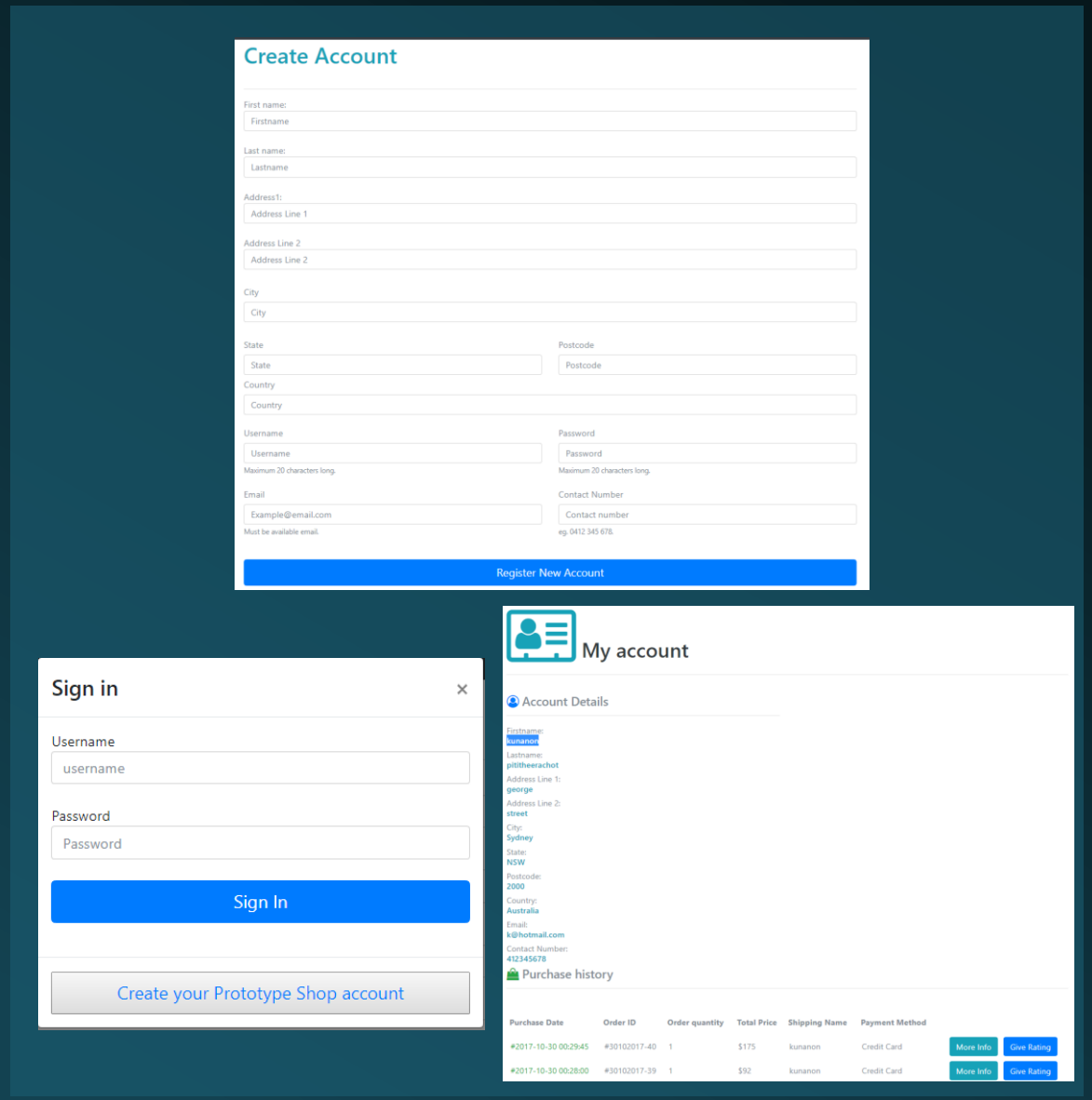
Name	Type
PaymentID	int
OrderID	varchar
PaymentType	int
PaymentAmount	varchar
CardName	varchar
CardNumber	varchar
CardExpire	varchar
CardVerify	int

Name	Type
OrderID	varchar
CustomerID	int
OrderQTY	int
OrderTotal	float
PaymentType	int
OrderDate	datetime
ShippingFirstName	varchar
ShippingLastName	varchar
ShippingAddress1	varchar
ShippingAddress2	varchar
ShippingCity	varchar
ShippingState	varchar
ShippingPostcode	varchar
ShippingCountry	varchar
ShippingEmail	varchar
ShippingTel	varchar

Prototype Features

Account

- Register
- Sign In / Sign Out
- Account management



Prototype Features

Account

- Register
- Sign In / Sign Out
- Account management

	Name	Type
	CustomerID	int
	Username	varchar
	Password	varchar
	CustomerFirstname	varchar
	CustomerLastname	varchar
	CustomerAddr1	varchar
	CustomerAddr2	varchar
	City	varchar
	State	varchar
	Postcode	varchar
	Country	varchar
	CustomerTel	int
	Email	varchar
▶	PrivilegeID	int

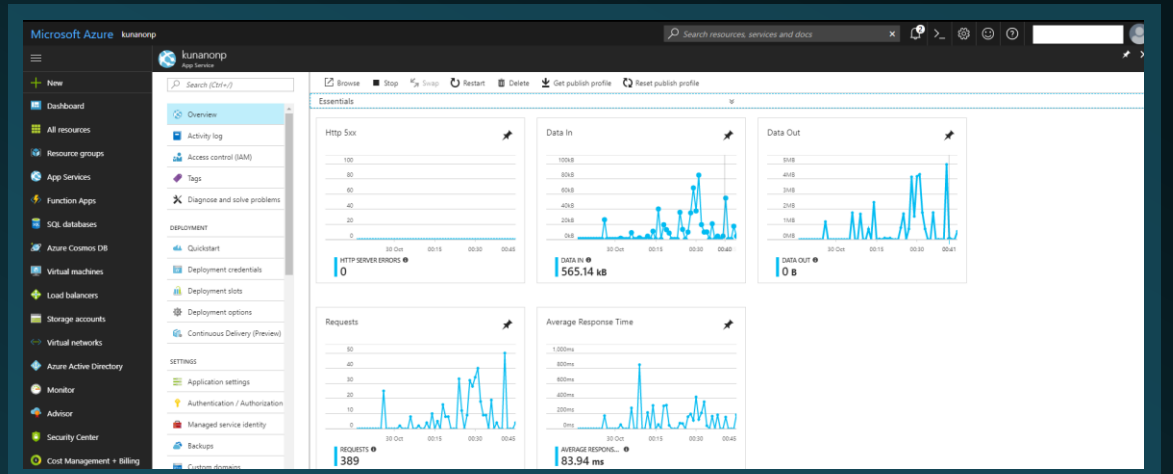
Prototype Features

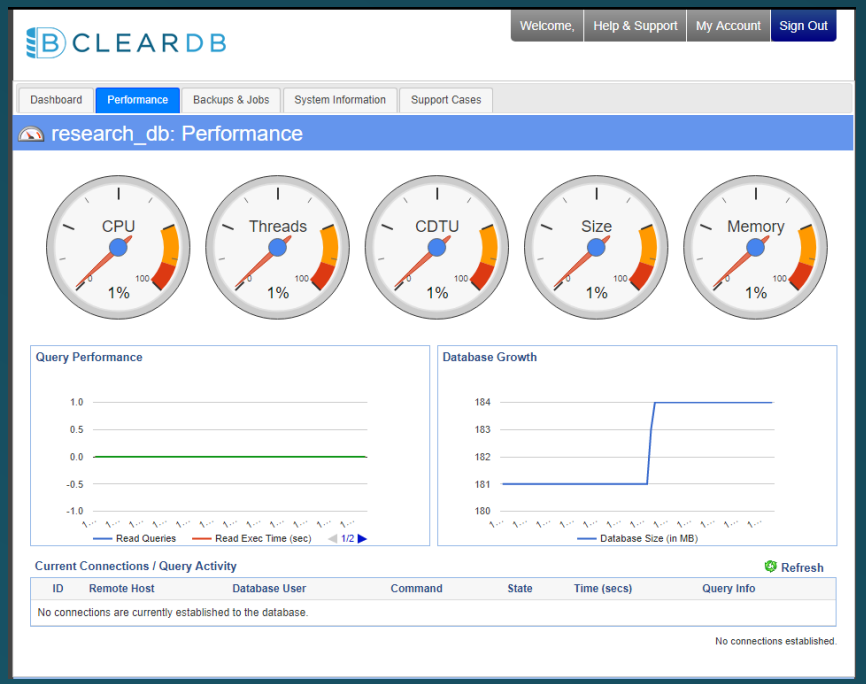
Admin zone

- Add
- Edit
- Remove
- Report

Prototype

- Azure cloud service
  - ClearDB database
  - http://kunanonp.azurewebsites.net/





Evaluation

- Test web application functions.
- Attempt to make a purchase.
  - With different payment method (credit card and PayPal)
- Attempt to create an account
  - Sign In
  - Sign Out
- Attempt to add, delete, update product on cart.
- Attempt to Search product.
- Check rating contents in product page.
- Check recommendation contents.
- Check admin zone outcome.

Conclusion

- Web application for retail
- Content-based recommendation
- Performance
- Future work
  - Collaborative recommendation system
  - API
  - Admin zone functions