

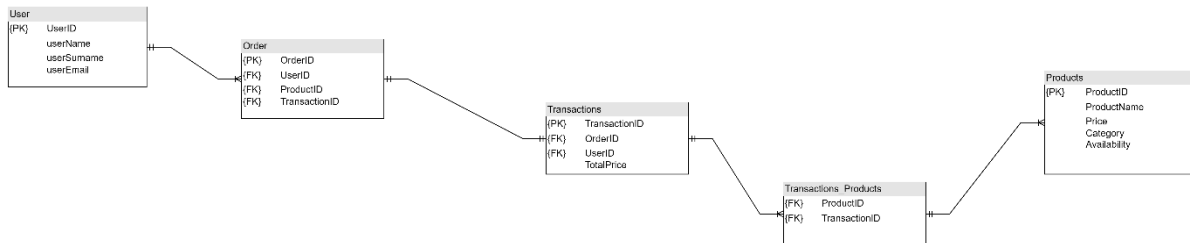
```
position: absolute; z-index: 999;
0 1px 5px #ccc}.gbrtl .gbm{-mo
#ccc;display: block; position: ab
);*opacity: 1;*top: -2px;*left: -
1\0/;top: -4px\0/;left: -6px\0/
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inline-block; line-height: 27px;
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relative; z-index: 1000}.gbts{*d
ees{padding-right: 9px}#gbz .gb
round: url(//
```

CLDV6211 POE PART 2

Submission

QUESTION 1

ENTITY RELATIONSHIP DIAGRAM FOR CLOUD DEV DB



QUESTION 2

Site URL: <https://st10178800-p2.azurewebsites.net>

GitHub Link: <https://github.com/OnelloTarjanne22/CLDV6221POEPART2.git>

Creating Database

The screenshot shows the 'Create SQL Database' wizard in the Microsoft Azure portal. The 'Project details' section shows the subscription 'ADVTech-Tertiary Varsity College' and the resource group 'AZ-JHB-RSG-VCWCCT-ST10178800-TER'. The 'Database details' section shows the database name 'cldvPOE' and the server 'cldv6211-server (South Africa North)'. The 'Workload environment' is set to 'Development'. The 'Review + create' button is visible at the bottom.

ESTIMATED STORAGE COST / MONTH 6.73 USD
COMPUTE COST / VCORE SECOND 0.000204 USD

NOTES
1 Serverless databases are billed in vCore seconds based on a combination of CPU and memory utilization. [Learn more about serverless billing](#)

- Database name should not match special patterns
- The value has a length of at most 128.
- Database name should not contain reserved words
- No database with the same name exists in the server

Figure 1 Creation of SQL Database

When a database is created, it is important that it is linked to a server, as it is essential for efficient data storage, retrieval and providing persistent storage through constraints and transactions. It enhances performance with optimization and offers robust security measures like authorization, and encryption. Databases also create centralized data management, enabling consistent access and advanced data analysis for reporting and business intelligence, which are crucial for scalable and reliable application operations. To deploy a database on Azure, we first create an Azure SQL Database by navigating to the Azure portal, selecting the "Create a resource" tab and choosing "SQL Database." After selection we configure the database settings, including the server, database name, and performance tier(Basic is the most cost efficient). Next, we set up the SQL Server by providing a unique name, region, and the admin credentials(Password and user). After deployment, configure the firewall settings to allow access from your IP address or Azure services. For this project the

platform , SQL Server Management Studio (SSMS),was used to connect to the database and migrate data.

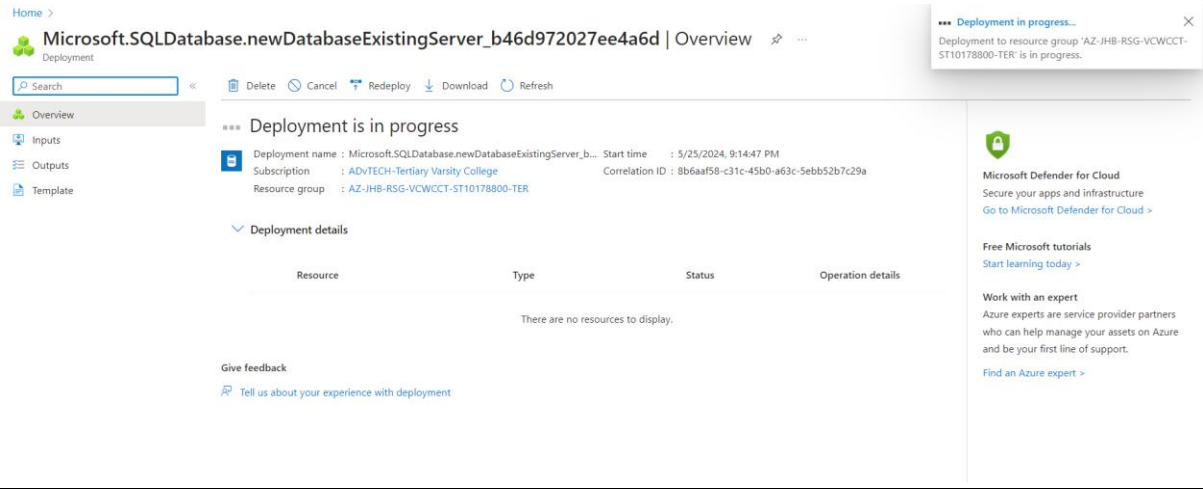


Figure 2 Database Deployment

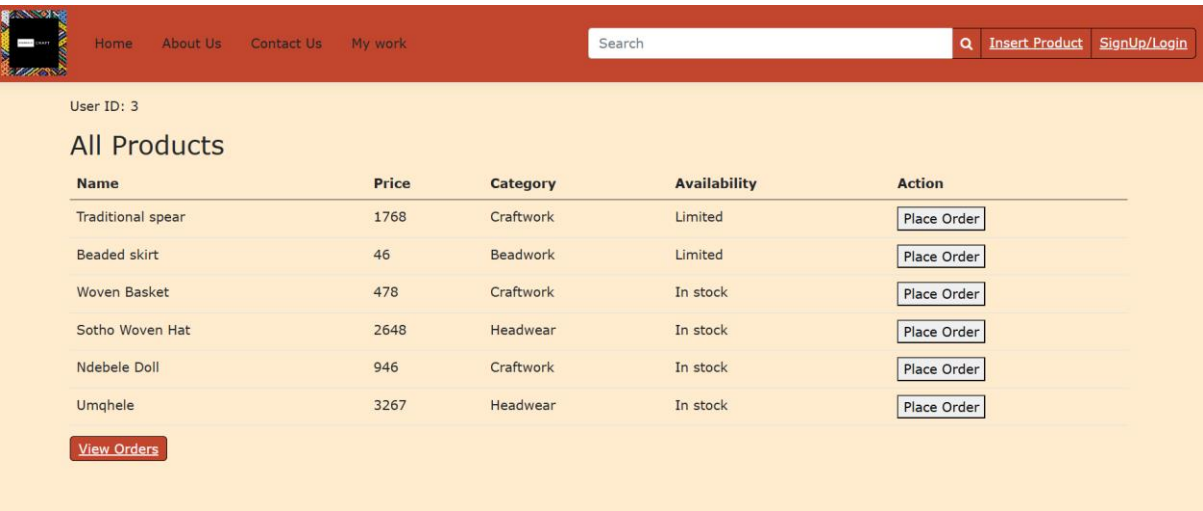


Figure 3 My Work Page

Users are able to make orders through this page once logged in by pressing the place order button, this order can be shown on their orders including the one just made. The information entered is shown in the tables below and all the information relevant to each user can be requested by the user and displayed upon their request.

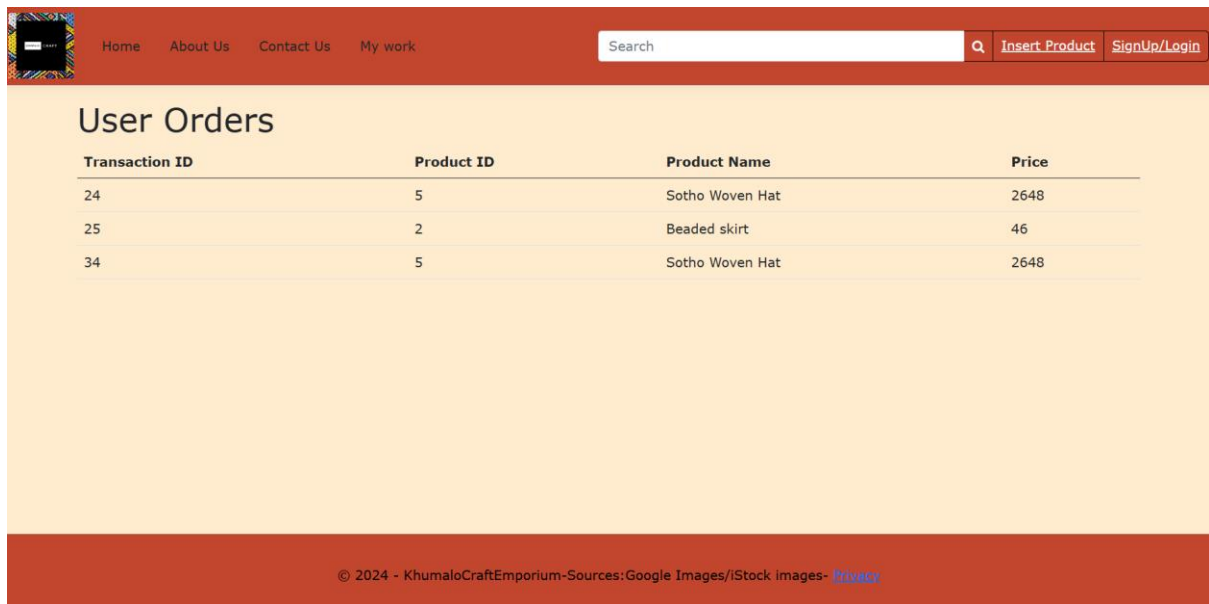


Figure 4 User Orders Display

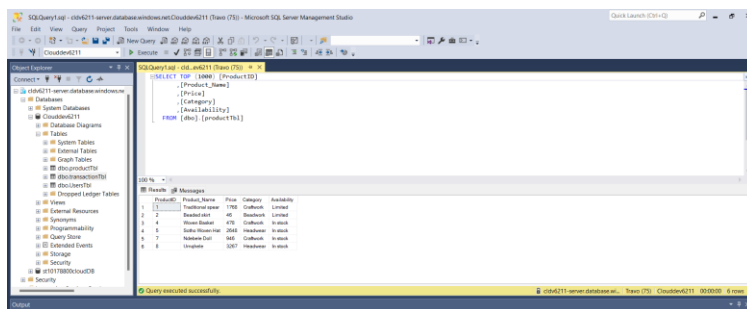


Figure 5 Products storage table in SSMS

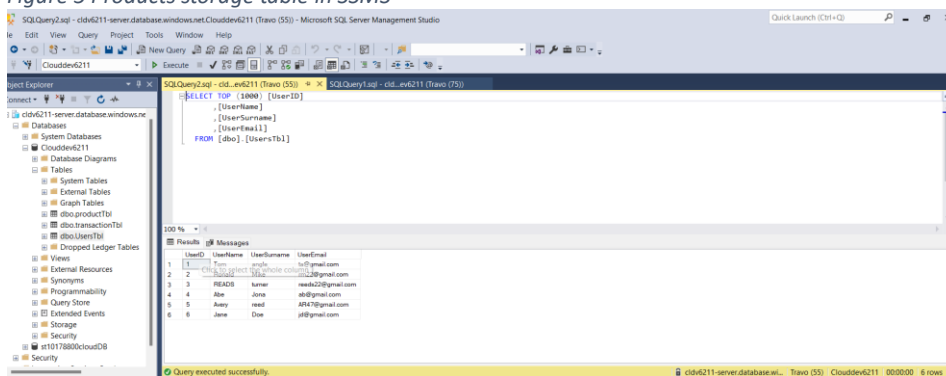


Figure 6 User storage Table SSMS

SQLQuery3.sql - cldv6211-server.database.windows.net.Clouddev6211 (Travo (64)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

Connect - Clouddev6211

Object Explorer

- Connect - Clouddev6211
- Databases
 - System Databases
 - Clouddev6211
 - Database Diagrams
 - Tables
 - System Tables
 - External Tables
 - Graph Tables
 - dbo.productTbl
 - dbo.transactionTbl
 - dbo.UsersTbl
 - Dropped Ledger Tables
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Query Store
 - Extended Events
 - Storage
 - Security

SQLQuery3.sql - cldv6211 (Travo (64))

```

SELECT TOP (1000) [TransactionID]
, [UserID]
, [Product_Name]
, [Price]
, [ProductID]
FROM [dbo].[transactionTbl]

```

Results

TransactionID	UserID	Product_Name	Price	ProductID
1	1	Traditional spear	1768	1
2	3	Traditional spear	1768	1
3	4	Woven Basket	478	4
4	5	Woven Basket	478	4
5	6	Sotho Woven Hat	2648	5
6	8	Beaded skirt	46	2
7	14	Woven Basket	478	4
8	15	Woven Basket	478	4
9	16	Sotho Woven Hat	2648	5
10	17	Beaded skirt	46	2

Query executed successfully.

Output

```

class = 1 and
name = N'microsoft_database_tools_support')
is not null then 1
else 0
end

```

Figure 7 Transaction storage Table SSMS

REFERENCES

Hege Refsnes and W3Schools (2010). *Learn CSS with W3Schools*. John Wiley & Sons. [Accessed 10 Mar. 2023].

Shijimol Ambi Karthikeyan and Springerlink (Online Service (2018). *Practical Microsoft Azure IaaS : Migrating and Building Scalable and Secure Cloud Solutions*. Berkeley, Ca: Apress.

Harrington, J.L. (2002). *Relational database design clearly explained*. San Francisco, Ca: Morgan Kaufmann.

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<https://www.eginnovations.com/blog/choosing-azure-database-services-what-are-the-options/> [Accessed 26 May 2024].