Data Analytics

AN INTERNSHIP REPORT

Submitted by

Swar S. Parikh

200050131124

In Partial fulfillment for the award of the degree Of

BACHELOR OF ENGINEERING

in

Department of Computer Science &

EngineeringBabaria Institute of Technology,

Vadodara

Gujarat Technological University,

Ahmedabad

Academic year (2023-2024)

Team ID: 433957 200050131124

Babaria Institute of Technology

Vadodara-Mumbai National Highway

#8,Varnama, Vadodara,

Gujarat 391240

CERTIFICATE

Date:01/11/2023

*This is to certify that the Internship Work entitled "**Data Analytics"** has been carried out by **Swar Sanjaykumar Parikh** under my guidance in fulfillment of the degree of Bachelor of Engineering in Information Technology (8th Semester) of Gujarat Technological University, Ahmedabad during the academic year 2023-24.*

Professor HENIL D. SUTHAR

(Internal Guide)

Dr. Rocky S. Upadhyay

(Head of the Department)

Gujarat Technological University

Babaria Institute of Technology

OFFER LETTER

V-EX TECH SOLUTION

V-Ex Tech Solution
Software Solution

301,Dhun Complex,Nizampura
Above Riya Bridal Studio,
vadodara-390002

Internship Offer Letter

Dear Swar Parikh
we are pleased to offer you internship at V-Ex Tech Solution. we feel that your skills and background will be valuable assets to our team.

As per discussion,the position is Data Analysis Intern,Your Starting Date Will Be 16-01-2024,Time Period Will Be 3Months as per college.

we look forward to welcoming as a new Intern at V-Ex Tech Solution,we wish you a Successful Carrer With us.

HIMANSHU
Director & CEO.
Director & CEO

v-extechsolution.in

CERTIFICATE OF COMPLETION

V-EX TECH SOLUTION

301, 3rd Floor, Dhun Complex,
A-22 Santoknagar Society,
Old Chhani Road, Nava Yard,
Vadodara-390024, GUJARAT
96647 68292

INTERNSHIP COMPLETION LETTER

Date:- 16-03-2024

To,

Head of Department,
Babaria Institute of Technology,
Varnama,
Vadodara. GUJARAT

As per the requirement from the college regarding the Internship, we have provided an internship to:-

Name	*Swar Parikh*
Enr. No.	*200050131124*
Student of	*Bachelor in Computer Science and Engineering*
College	*Babaria Institute of Technology, Varnama,*
Place	*Vadodara. GUJARAT*
From	*16-01-2024*
To	*16-04-2024*

This is to certify that Swar Parikh, a student of Babaria Institute of Technology is pursuing his internship in the field of Data Anaylsis from 16th January 2024 to be ongoing under the guidance of Mr. Veer.

During the internship, he Learned SQL, Python, Excel, Power BI, Advance Excel, & many more related concepts which require in Data Analysis.

Additionally, he is contributing to the construction of secure authentication mechanisms and the development of efficient payment systems.

During the period of his internship program with us, he had been exposed to different processes and was found diligent, hardworking, and inquisitive.

We wish him all the best in his future endeavor.

SOFTWARE SOLUTION V-EX TECH Success

Authorized Signature

ACKNOWLEDGEMENT

First of all, I am grateful to the Almighty, ho graces us, and without the blessing from whom, we cannot think of breathing to learn.

This is My Internship Training Report after Completion of Internship Training at **V-EX Tech Solution**. I wish to express My Sincere Thanks to **Prof. Rocky S. Upadhyay**, Head of the Department of Information Technology. And also, to **Prof. HENIL D. SUTHAR** the Supervisor for the Internship Training.

I express My Gratitude to **V-EX Tech Solution** and **Mr. Himanshu Aggarwal Sir,** HR Manager, for allowing me to work with them and make the best out of My Internship.

I Especially Thank My Supervisor, **Mr. Veer Agraval Sir**, for constantly guiding and supporting me throughout the Training. My Heartfelt Gratitude also goes out to all the staff and employees **V-EX Tech Solution** for Cooperating with me and guiding me throughout My Internship.

Last but not least Important, I take this Opportunity to Thank My Parents and Friends who have been with me and offered emotional Strength and Moral Support.

ABSTRACT

This Internship Report outlines the activities, achievements, and experiences gained during a Data Analytics Internship. The Report begins with an Introduction to the Company and the Internship Program. The Primary focus of the Internship was to apply Data Analytics Techniques to solve Business Problems and Provide Insights to Stakeholders. The Report highlights the key activities undertaken during the Internship, such as Data Collection, Data Cleaning, Data Analysis, and Data Visualization. The Report also covers the Techniques used for Data Analysis, including Statistical Analysis, Machine Learning, and Predictive Modeling. Additionally, the report discusses the tools and technologies used, such as Python, SQL, Excel, and Power BI. The Report concludes with a Summary of the achievements and lessons learned during the Internship, including the Development of Technical Skills, Communication Skills, and Problem-Solving Abilities. Overall, the Internship provided Valuable Experience and Exposure to Real-World Data Analytics Projects, and the Skills developed are Transferable to a wide range of Industries and Roles.

LIST OF FIGURES

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Chapter 1. Introduction

INTRODUCTION

1.1 Introduction to Company

[Figure 1.1 V-EX Tech Solution]

V-Ex Tech is an ISO Certified software consulting & service Company. V-Ex tech is Having Strong Experience of 16+ Years in designing software & create dynamic web pages, creating admin penal with back-end.

It is a part of V-Ex tech, which is in existence since 2001.it is having software company in Vadodara (Gujarat).

They have Specialties on Time Punctuality, Easy to Use, Best Management, Good Concept, Web Development, Front-End / Back-End and Full Stack and Data Analytics.

V-Ex Tech is delivering software solutions across industry verticals like banking, finance, spanning from large multinational corporation to small, medium & large enterprises located in USA, Canada, UK, Europe, Africa and Australia.

1.1.1 Organization Products/ Services

- Data Analytics
- Python Programming
- Web Design and Development
- PHP Laravel, React JS or Node JS Development
- Full-Stack Development

1.1.2 Contact:

- **Website:** https://v-extechsolution.in/
- **Email:** email-veeragraval@v-extechsolution.in
- **Address:** 301, Third Floor, Dhun Complex Complex, Above Riya Bridal Studio, Nizampura, Vadodara, Gujarat 390002

Chapter 2. Overview of Different Department in Company

2.1 Python Programming

V-EX Tech Solutions is a software development company that provides Python programming services to clients worldwide. The company has a team of experienced Python developers who specialize in building high-quality, scalable, and robust software solutions.

V-EX Tech Solutions offers a range of Python programming services, including: Web Development, Data Science, Automation, Custom Software Development, Support and Maintenance.

V-EX Tech Solutions has a proven track record of delivering high-quality Python-based solutions to clients in various industries, including finance, healthcare, education, and e-commerce. Their team of Python developers is skilled in the latest technologies and frameworks, ensuring that clients receive solutions that are up-to-date and efficient.

2.2 Web Designing and Development

V-EX Tech Solutions is a web design and development service provider, offering a range of services to help businesses establish their online presence. With a team of skilled designers, developers, and digital marketers, the company provides customized solutions to meet the unique needs of each client.

The company's web development services include front-end and back-end development, e-commerce development, and CMS development. They have experience working with a variety of content management systems, such as WordPress, Drupal, and Magento, and can create custom solutions to meet the unique needs of each client.

Overall, the company is a reliable and experienced web design and development service provider, offering a range of services to help businesses establish a strong online presence and achieve their digital marketing goals.

2.3 PHP Laravel

V-EX Tech Solution is a leading software development company that specializes in providing PHP Laravel services to clients around the world. With a team of experienced developers, designers, and project managers, V-EX Tech Solution is committed to delivering high-quality, cost-effective solutions that meet the unique needs of each client.

V-EX Tech Solution offers a wide range of PHP Laravel services, including custom web application development, e-commerce development, CMS development, and API development. They use the latest technologies and best practices to create scalable and secure solutions that are tailored to each client's specific requirements.

Overall, V-EX Tech Solution is a reliable and experienced provider of PHP Laravel services that delivers high-quality, cost-effective solutions to clients around the world. Their expertise with PHP Laravel and other related technologies, combined with their commitment to customer satisfaction, makes them a trusted partner for any organization looking to develop a custom web application or e-commerce solution.

2.4 React JS and Node JS

V-EX Tech Solution is a company that provides ReactJS and NodeJS services is likely a web development company that specializes in building web applications using these technologies. ReactJS is a JavaScript library that is used for building user interfaces, while NodeJS is a runtime environment for executing JavaScript code outside of a web browser

Overall, V-EX Tech Solution may have a team of experienced developers who work closely with clients to understand their requirements and deliver high-quality projects on time and within budget.

2.5 Full-Stack Developers

V-EX Tech Solution is a leading provider of full stack developer services, offering clients end-to-end development solutions for web and mobile applications. The company is headquartered in Vadodara, with a team of experienced developers and designers who specialize in building custom applications using the latest technologies and frameworks.

The company offers a wide range of full stack development services, including front-end development, back-end development, database design, API development, and quality assurance. Their team of full stack developers are experienced in a range of programming languages such as JavaScript, Python, Ruby on Rails, and more.

Overall, V-EX Tech Solution is a reliable and experienced provider of full stack developer services, offering clients end-to-end solutions for web and mobile application development. Their team of developers are skilled in a range of programming languages and frameworks, and are dedicated to delivering high-quality, scalable, and secure applications that meet the needs of their clients.

Chapter 3. Introduction to Project/Internship

3.1 Internship Summary

Data analytics involves using statistical methods and tools to analyze data and extract insights.

The process involves collecting, cleaning, and transforming data, as well as modeling and visualizing data to identify patterns and trends.

The goal of data analytics is to provide actionable insights that can inform decision-making and drive business outcomes.

Data analytics is used across a range of industries and applications, including finance, healthcare, marketing, and more.

The field is constantly evolving, with new technologies and techniques emerging to help analysts work more efficiently and effectively.

3.2 Objectives

Identifying patterns and trends: Data analytics can help identify patterns and trends in large data sets that might not be apparent through traditional analysis methods.

Improving decision-making: Data analytics can help organizations make more informed decisions based on data-driven insights, rather than relying on gut instincts or intuition.

Optimizing operations: Data analytics can help organizations optimize their operations by identifying inefficiencies, streamlining processes, and improving overall performance.

Enhancing customer experiences: Data analytics can help organizations understand their customers better, identify their needs and preferences, and provide personalized experiences that drive loyalty and satisfaction.

Innovating products and services: Data analytics can help organizations identify new opportunities for innovation, by uncovering unmet customer needs or identifying emerging trends.

3.3 Scope

The scope of data analytics is constantly expanding, as more organizations realize the value of data-driven decision-making. With the growth of big data and advancements in technology, the opportunities for data analytics are only expected to increase in the future.

- Business: Data analytics is used in business to analyze customer behavior, optimize marketing strategies, identify new revenue opportunities, and improve operational efficiency.
- Healthcare: Data analytics is used in healthcare to improve patient outcomes, identify disease trends, and reduce healthcare costs.
- Finance: Data analytics is used in finance for fraud detection, risk assessment, credit scoring, and investment analysis.
- Education: Data analytics is used in education to improve student performance, identify learning gaps, and measure the effectiveness of educational programs.
- Government: Data analytics is used in government to improve public safety, optimize resource allocation, and measure the impact of government policies.

3.3 Technology Used

3.3.1 Python

Python is a high-level, general-purpose programming language. Its design philosophy emphasizes code readability with the use of significant indentation via the off-side rule.

Python is a popular high-level programming language used for a wide variety of applications, including Web Development, Data Analysis, Artificial Intelligence, and Scientific Computing. It was First released in 1991 and has since become one of the most widely used programming languages in the world.

Python is known for its simple, clear syntax that is easy to read and write. It uses indentation to indicate blocks of code, which makes it highly readable and helps maintain consistency in code formatting

Python is dynamically typed and garbage-collected. It supports multiple programming paradigms, including structured (particularly procedural), object-oriented and functional programming. It is often described as a "batteries included" language due to its comprehensive standard library.

Guido van Rossum began working on Python in the late 1980s as a successor to the ABC programming language and first released it in 1991 as Python 0.9.0. Python 2.0 was released in 2000. Python 3.0, released in 2008, was a major revision not completely backward-compatible with earlier versions.

Python 2.7.18, released in 2020, was the last release of Python 2.

Python consistently ranks as one of the most popular programming languages.

3.3.2 Advanced Excel

Microsoft Excel is a spreadsheet application developed by Microsoft Corporation that allows users to organize, analyze, and manipulate data using rows and columns of cells. Excel is a powerful tool for creating and managing complex spreadsheets, as well as for performing calculations and generating graphs and charts.

Excel is used in a variety of industries and professions, including finance, accounting, engineering, and data analysis. It offers a range of features and tools that can help users to automate tasks, create custom formulas, and analyze large sets of data quickly and easily.

Some of the key features of Excel include the ability to create and format spreadsheets, perform calculations and functions, use charts and graphs to visualize data, filter and sort data, use conditional formatting to highlight important information, and collaborate with others in real-time.

Excel can be used for a wide range of tasks, including creating budgets, tracking expenses, managing inventory, analyzing sales data, and creating financial statements. Its flexibility and versatility make it a valuable tool for individuals and businesses alike.

3.3.3 SQL

MySQL is an open-source relational database management system (RDBMS). Its name is a combination of "My",the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured QueryLanguage.

A relational database organizes data into one or more data tables in which data may be related to eachother; these relations help structure the data. SQL is a language programmers use to create, modify and extract data from the relational database, as well as control user access to the database.

In addition to relational databasesand SQL, an RDBMS like MySQL works with an operating system to implement a relational database in a computer's storage system, manages users, allows for network access and facilitates testing database integrity andcreation of backups.

and facilitates testing database integrity andcreation of backups.

3.3.4 Power BI

Power BI is a business intelligence and data visualization tool developed by Microsoft. It allows users to connect, analyze, and visualize data from various sources, including Excel spreadsheets, databases, cloud-based and on-premises data sources, and third-party applications.

With Power BI, users can create interactive dashboards, reports, and data visualizations that enable data-driven insights and decision-making. The platform provides a range of features, including data modeling, data preparation, custom calculations, and advanced analytics.

Power BI also offers a wide range of connectors to various data sources, including Azure, Salesforce, Google Analytics, and many more. The platform also supports collaboration and sharing, allowing users to share their dashboards and reports with colleagues or external stakeholders in real-time.

Power BI is available in different versions, including Power BI Desktop (for creating reports and data models), Power BI Service (for sharing and collaborating on reports and dashboards), and Power BI Mobile (for accessing reports and dashboards on mobile devices).

3.4 Internship Planning

3.4.1 Internship Development Approach and Justification

- Before The Starting of Internship, Interns should have the knowledge about His/Her's Choosed Technology.
- A Successful Internship requires not only a good deal of effort on the side of The Intern, but managers and supervisors most also put in some work to ensure that the Intern gets a meaningful experience.
- The Key is to Accept Responsibility when things don't go as planned. taking ownership and articulating possible solutions will result in faster resolution and enable others to see us as a Leader.
- On behalf of students, we are always working with them on things they can do to become a better

3.4.2 Internship Effort and Time

- As an Intern, I have gained the experience of Live Project & How to work in Hectic Situation.
- I conduct Myself in a professional manner at all times and this is the role and responsibility of an Intern.
- Develop a respectful and co-operative relationship with the company mentors and the other interns at the working place.
- Always be punctual to work and always behave in an ethical manner.
- Completed My Internship in Data Analytics in 12 weeks of time period.

Chapter 4. System Analysis

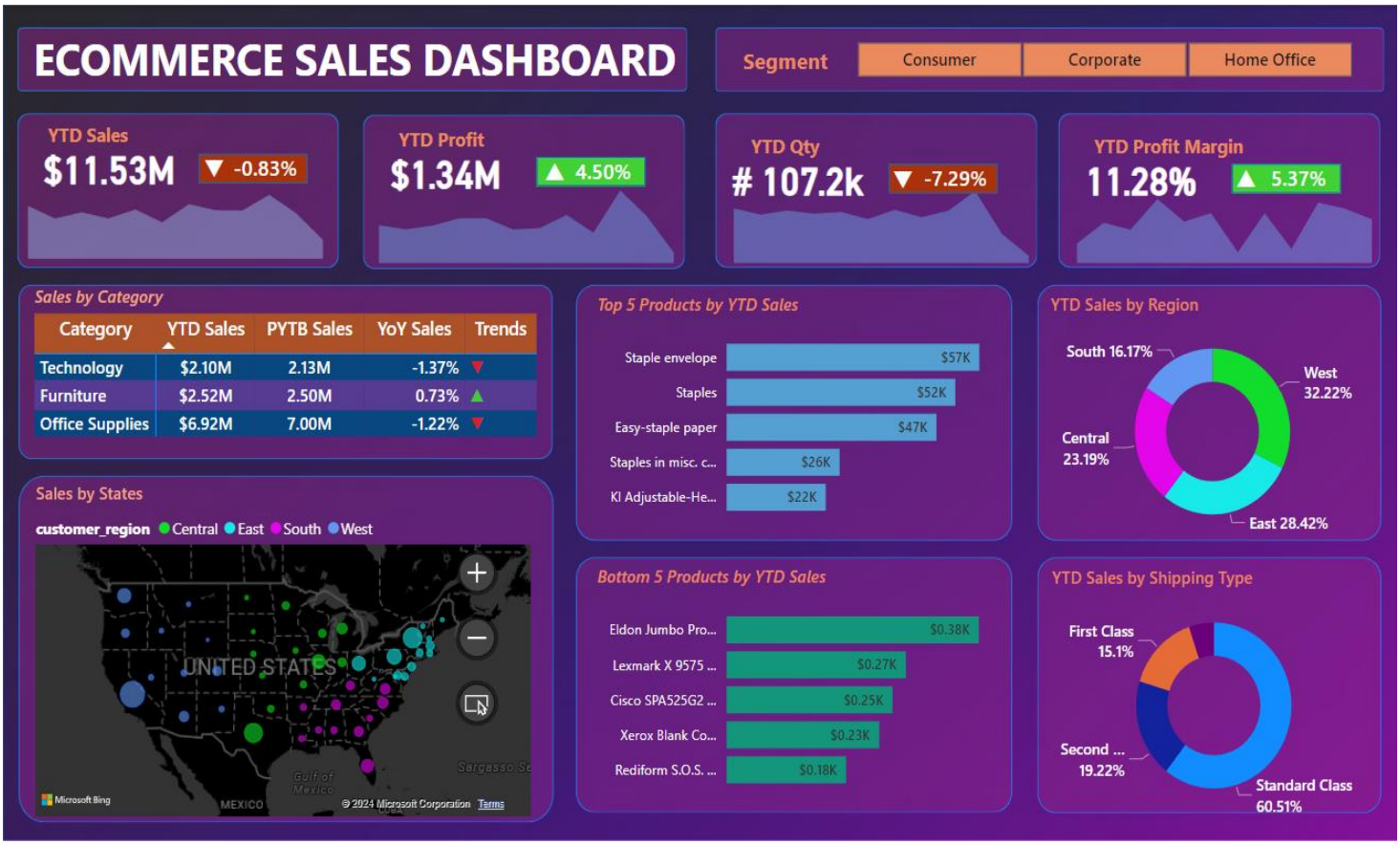
4.1 Study of Current Tools

- Using Power BI, SQL, Advanced Excel and Python to Create a project on IPL, Road Accident, Music Store Report, Diwali Sales Report, and E-Commerce Sales Report.
- Using Different tools, I Create a Dash board on Meet-Ecommerce Sales, Road Accident and IPL Analysis.
- Also using Python to Create a Exploratory Analysis Report on Diwali Sales Data and IPL 2008-2020 Data.
- Using SQL, we store Music Store Database and Solve the insights and also Store the IPL Database and Solve the insights using Query.
- Also Created a Excel report on Road Accident and Shri Ram Store Report.

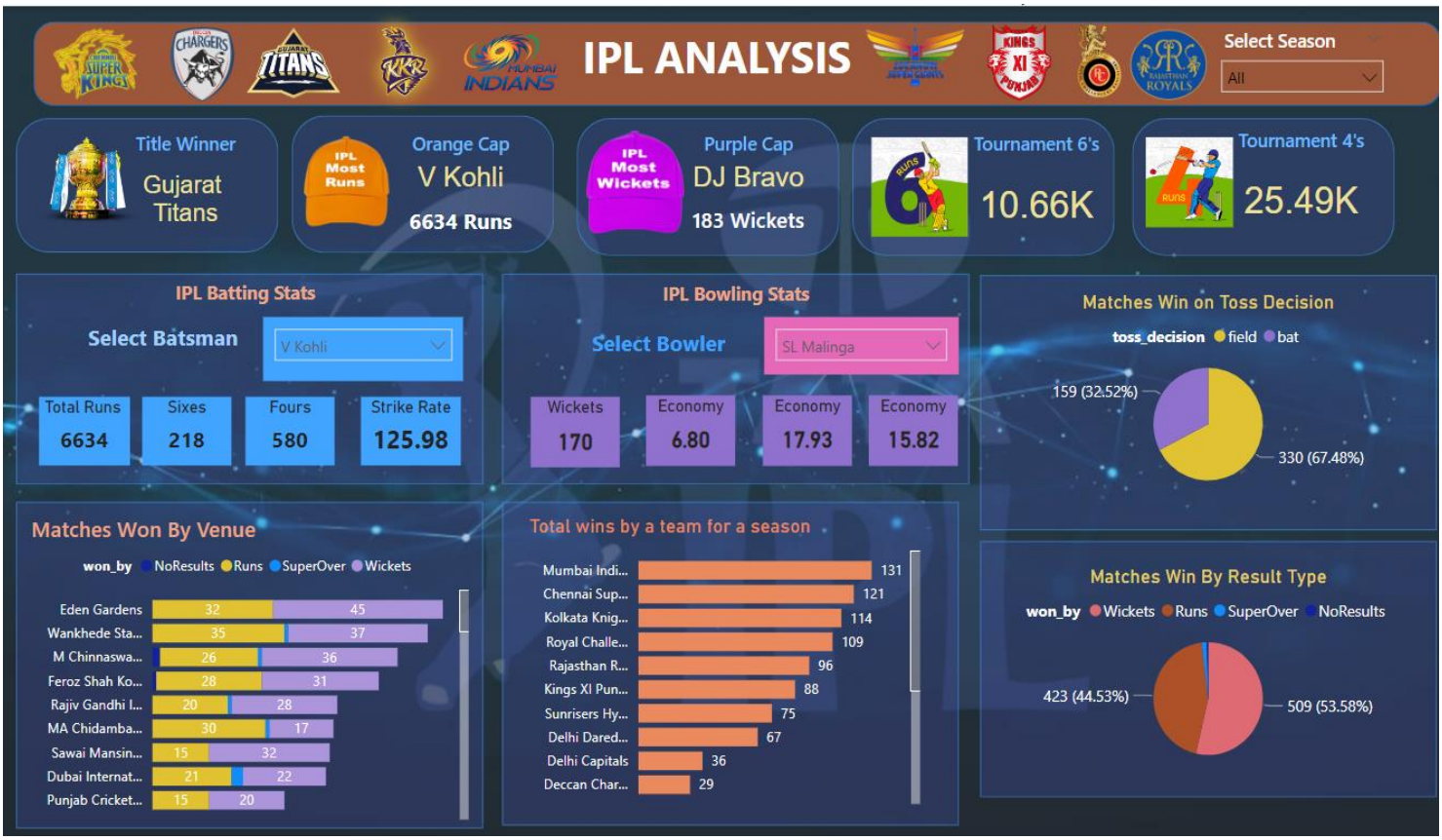
4.2 Problem and Weakness of Current Tools

- Limited exposure to real-world data.
- Lack of mentorship and guidance.
- Limited access to tools a resource.
- Insufficient training in data privacy and security.
- Lack of diversity and inclusion.
- Limited feedback and evaluation.

Chapter 5. Project Screenshot



[Fig 5.1.1. E-Commerce Sales Dash Board]

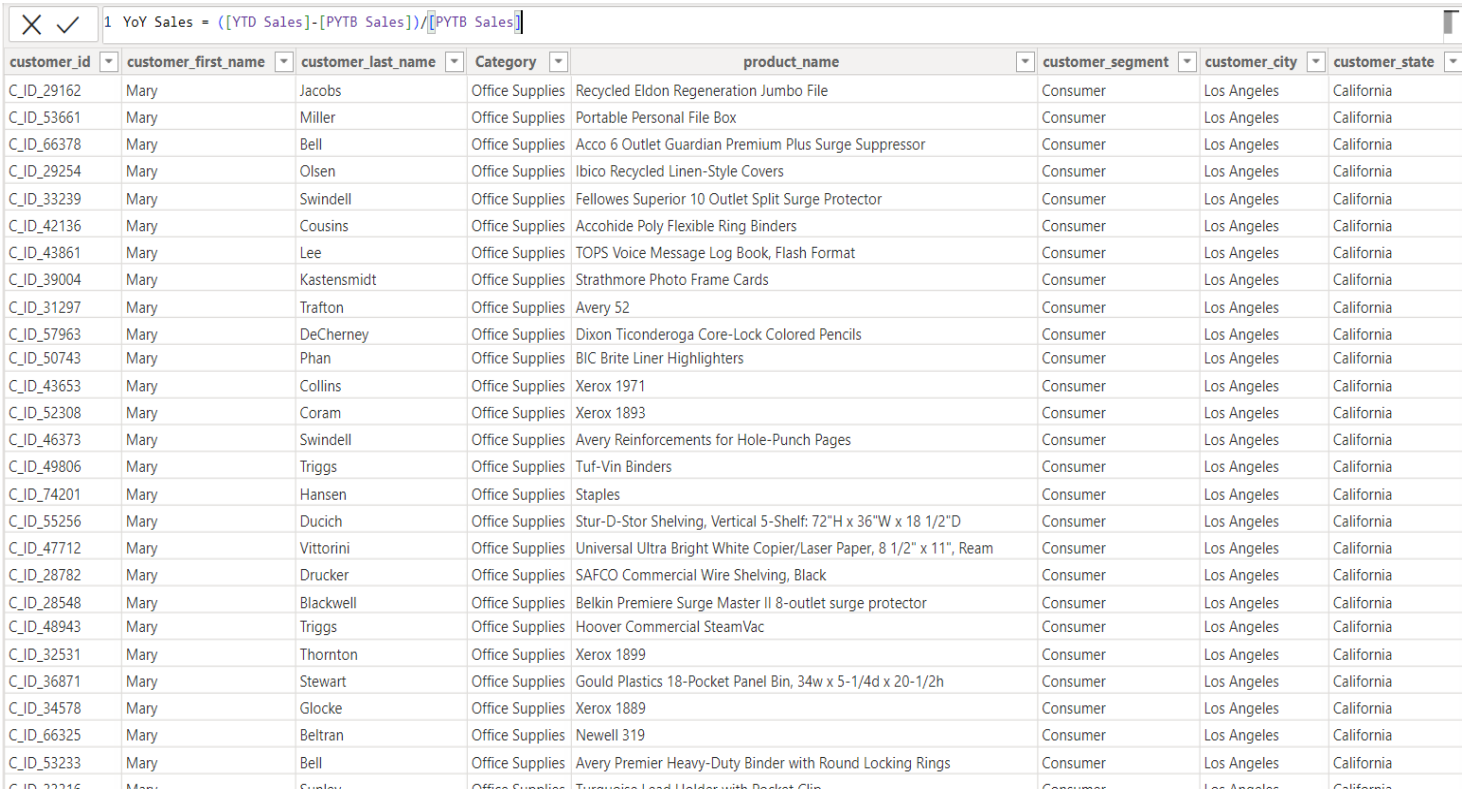


[Fig 5.1.2 IPL Analysis Dash Board]

```
1 PYTB Sales = CALCULATE(SUM(ecommerce_data[sales_per_order]),DATESYTD(SAMEPERIODLASTYEAR(Calender[Date])))
```

customer_id	customer_first_name	customer_last_name	Category	product_name	customer_segment	customer_city	customer_state
C_ID_29162	Mary	Jacobs	Office Supplies	Recycled Eldon Regeneration Jumbo File	Consumer	Los Angeles	California
C_ID_53661	Mary	Miller	Office Supplies	Portable Personal File Box	Consumer	Los Angeles	California
C_ID_66378	Mary	Bell	Office Supplies	Acco 6 Outlet Guardian Premium Plus Surge Suppressor	Consumer	Los Angeles	California
C_ID_29254	Mary	Olsen	Office Supplies	Ibico Recycled Linen-Style Covers	Consumer	Los Angeles	California
C_ID_33239	Mary	Swindell	Office Supplies	Fellowes Superior 10 Outlet Split Surge Protector	Consumer	Los Angeles	California
C_ID_42136	Mary	Cousins	Office Supplies	Accohide Poly Flexible Ring Binders	Consumer	Los Angeles	California
C_ID_43861	Mary	Lee	Office Supplies	TOPS Voice Message Log Book, Flash Format	Consumer	Los Angeles	California
C_ID_39004	Mary	Kastensmidt	Office Supplies	Strathmore Photo Frame Cards	Consumer	Los Angeles	California
C_ID_31297	Mary	Trafton	Office Supplies	Avery 52	Consumer	Los Angeles	California
C_ID_57963	Mary	DeCherney	Office Supplies	Dixon Ticonderoga Core-Lock Colored Pencils	Consumer	Los Angeles	California
C_ID_50743	Mary	Phan	Office Supplies	BIC Brite Liner Highlighters	Consumer	Los Angeles	California
C_ID_43653	Mary	Collins	Office Supplies	Xerox 1971	Consumer	Los Angeles	California
C_ID_52308	Mary	Coram	Office Supplies	Xerox 1893	Consumer	Los Angeles	California
C_ID_46373	Mary	Swindell	Office Supplies	Avery Reinforcements for Hole-Punch Pages	Consumer	Los Angeles	California
C_ID_49806	Mary	Triggs	Office Supplies	Tuf-Vin Binders	Consumer	Los Angeles	California
C_ID_74201	Mary	Hansen	Office Supplies	Staples	Consumer	Los Angeles	California
C_ID_55256	Mary	Ducich	Office Supplies	Stur-D-Stor Shelving, Vertical 5-Shelf: 72"H x 36"W x 18 1/2"D	Consumer	Los Angeles	California
C_ID_47712	Mary	Vittorini	Office Supplies	Universal Ultra Bright White Copier/Laser Paper, 8 1/2" x 11", Ream	Consumer	Los Angeles	California
C_ID_28782	Mary	Drucker	Office Supplies	SAFCO Commercial Wire Shelving, Black	Consumer	Los Angeles	California
C_ID_28548	Mary	Blackwell	Office Supplies	Belkin Premiere Surge Master II 8-outlet surge protector	Consumer	Los Angeles	California
C_ID_48943	Mary	Triggs	Office Supplies	Hoover Commercial SteamVac	Consumer	Los Angeles	California
C_ID_32531	Mary	Thornton	Office Supplies	Xerox 1899	Consumer	Los Angeles	California
C_ID_36871	Mary	Stewart	Office Supplies	Gould Plastics 18-Pocket Panel Bin, 34w x 5-1/4d x 20-1/2h	Consumer	Los Angeles	California
C_ID_34578	Mary	Glocke	Office Supplies	Xerox 1889	Consumer	Los Angeles	California
C_ID_66325	Mary	Beltran	Office Supplies	Newell 319	Consumer	Los Angeles	California
C_ID_53233	Mary	Bell	Office Supplies	Avery Premier Heavy-Duty Binder with Round Locking Rings	Consumer	Los Angeles	California
C_ID_33316	Mary	Sunley	Office Supplies	Turquoise Lead Holder with Pocket Clip	Consumer	Los Angeles	California

[Fig 5.2.1 E-Commerce Excel Measures-1]



```
1 YoY Sales = ([YTD Sales]-[PYTB Sales])/[PYTB Sales]
```

customer_id	customer_first_name	customer_last_name	Category	product_name	customer_segment	customer_city	customer_state
C_ID_29162	Mary	Jacobs	Office Supplies	Recycled Eldon Regeneration Jumbo File	Consumer	Los Angeles	California
C_ID_53661	Mary	Miller	Office Supplies	Portable Personal File Box	Consumer	Los Angeles	California
C_ID_66378	Mary	Bell	Office Supplies	Acco 6 Outlet Guardian Premium Plus Surge Suppressor	Consumer	Los Angeles	California
C_ID_29254	Mary	Olsen	Office Supplies	Ibico Recycled Linen-Style Covers	Consumer	Los Angeles	California
C_ID_33239	Mary	Swindell	Office Supplies	Fellowes Superior 10 Outlet Split Surge Protector	Consumer	Los Angeles	California
C_ID_42136	Mary	Cousins	Office Supplies	Accohide Poly Flexible Ring Binders	Consumer	Los Angeles	California
C_ID_43861	Mary	Lee	Office Supplies	TOPS Voice Message Log Book, Flash Format	Consumer	Los Angeles	California
C_ID_39004	Mary	Kastensmidt	Office Supplies	Strathmore Photo Frame Cards	Consumer	Los Angeles	California
C_ID_31297	Mary	Trafton	Office Supplies	Avery 52	Consumer	Los Angeles	California
C_ID_57963	Mary	DeCherney	Office Supplies	Dixon Ticonderoga Core-Lock Colored Pencils	Consumer	Los Angeles	California
C_ID_50743	Mary	Phan	Office Supplies	BIC Brite Liner Highlighters	Consumer	Los Angeles	California
C_ID_43653	Mary	Collins	Office Supplies	Xerox 1971	Consumer	Los Angeles	California
C_ID_52308	Mary	Coram	Office Supplies	Xerox 1893	Consumer	Los Angeles	California
C_ID_46373	Mary	Swindell	Office Supplies	Avery Reinforcements for Hole-Punch Pages	Consumer	Los Angeles	California
C_ID_49806	Mary	Triggs	Office Supplies	Tuf-Vin Binders	Consumer	Los Angeles	California
C_ID_74201	Mary	Hansen	Office Supplies	Staples	Consumer	Los Angeles	California
C_ID_55256	Mary	Ducich	Office Supplies	Stur-D-Stor Shelving, Vertical 5-Shelf: 72"H x 36"W x 18 1/2"D	Consumer	Los Angeles	California
C_ID_47712	Mary	Vittorini	Office Supplies	Universal Ultra Bright White Copier/Laser Paper, 8 1/2" x 11", Ream	Consumer	Los Angeles	California
C_ID_28782	Mary	Drucker	Office Supplies	SAFCO Commercial Wire Shelving, Black	Consumer	Los Angeles	California
C_ID_28548	Mary	Blackwell	Office Supplies	Belkin Premiere Surge Master II 8-outlet surge protector	Consumer	Los Angeles	California
C_ID_48943	Mary	Triggs	Office Supplies	Hoover Commercial SteamVac	Consumer	Los Angeles	California
C_ID_32531	Mary	Thornton	Office Supplies	Xerox 1899	Consumer	Los Angeles	California
C_ID_36871	Mary	Stewart	Office Supplies	Gould Plastics 18-Pocket Panel Bin, 34w x 5-1/4d x 20-1/2h	Consumer	Los Angeles	California
C_ID_34578	Mary	Glocke	Office Supplies	Xerox 1889	Consumer	Los Angeles	California
C_ID_66325	Mary	Beltran	Office Supplies	Newell 319	Consumer	Los Angeles	California
C_ID_53233	Mary	Bell	Office Supplies	Avery Premier Heavy-Duty Binder with Round Locking Rings	Consumer	Los Angeles	California

[Fig 5.2.2 E-Commerce Excel Measures-2]

```
1 YTD Sales = TOTALYTD(SUM(ecommerce_data[sales_per_order]),Calender[Date])
```

customer_id	customer_first_name	customer_last_name	Category	product_name	customer_segment	customer_city	customer_state
C_ID_29162	Mary	Jacobs	Office Supplies	Recycled Eldon Regeneration Jumbo File	Consumer	Los Angeles	California
C_ID_53661	Mary	Miller	Office Supplies	Portable Personal File Box	Consumer	Los Angeles	California
C_ID_66378	Mary	Bell	Office Supplies	Acco 6 Outlet Guardian Premium Plus Surge Suppressor	Consumer	Los Angeles	California
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C_ID_39004	Mary	Kastensmidt	Office Supplies	Strathmore Photo Frame Cards	Consumer	Los Angeles	California
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C_ID_50743	Mary	Phan	Office Supplies	BIC Brite Liner Highlighters	Consumer	Los Angeles	California
C_ID_43653	Mary	Collins	Office Supplies	Xerox 1971	Consumer	Los Angeles	California
C_ID_52308	Mary	Coram	Office Supplies	Xerox 1893	Consumer	Los Angeles	California
C_ID_46373	Mary	Swindell	Office Supplies	Avery Reinforcements for Hole-Punch Pages	Consumer	Los Angeles	California
C_ID_49806	Mary	Triggs	Office Supplies	Tuf-Vin Binders	Consumer	Los Angeles	California
C_ID_74201	Mary	Hansen	Office Supplies	Staples	Consumer	Los Angeles	California
C_ID_55256	Mary	Ducich	Office Supplies	Stur-D-Stor Shelving, Vertical 5-Shelf: 72"H x 36"W x 18 1/2"D	Consumer	Los Angeles	California
C_ID_47712	Mary	Vittorini	Office Supplies	Universal Ultra Bright White Copier/Laser Paper, 8 1/2" x 11", Ream	Consumer	Los Angeles	California
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C_ID_28548	Mary	Blackwell	Office Supplies	Belkin Premiere Surge Master II 8-outlet surge protector	Consumer	Los Angeles	California
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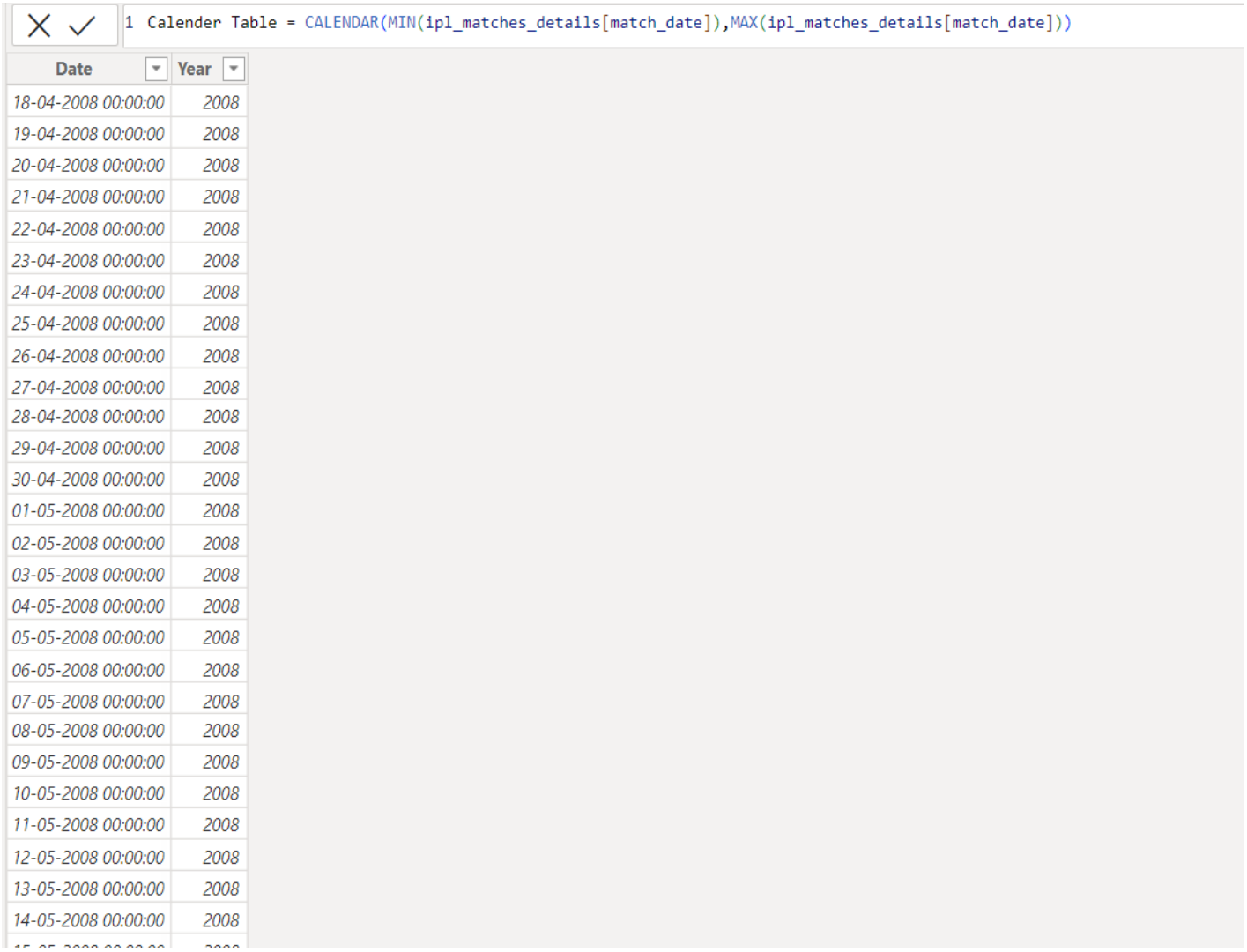
C_ID_36871	Mary	Stewart	Office Supplies	Gould Plastics 18-Pocket Panel Bin, 34w x 5-1/4d x 20-1/2h	Consumer	Los Angeles	California
C_ID_34578	Mary	Glocke	Office Supplies	Xerox 1889	Consumer	Los Angeles	California
C_ID_66325	Mary	Beltran	Office Supplies	Newell 319	Consumer	Los Angeles	California
C_ID_53233	Mary	Bell	Office Supplies	Avery Premier Heavy-Duty Binder with Round Locking Rings	Consumer	Los Angeles	California
C_ID_33316	Mary	Sunley	Office Supplies	Turquoise Lead Holder with Pocket Clip	Consumer	Los Angeles	California

[Fig 5.2.3 E-Commerce Excel Measures-3]



```
1 Calender Table = CALENDAR(MIN(ipl_matches_details[match_date]),MAX(ipl_matches_details[match_date]))
```

Date	Year
18-04-2008 00:00:00	2008
19-04-2008 00:00:00	2008
20-04-2008 00:00:00	2008
21-04-2008 00:00:00	2008
22-04-2008 00:00:00	2008
23-04-2008 00:00:00	2008
24-04-2008 00:00:00	2008
25-04-2008 00:00:00	2008
26-04-2008 00:00:00	2008
27-04-2008 00:00:00	2008
28-04-2008 00:00:00	2008
29-04-2008 00:00:00	2008
30-04-2008 00:00:00	2008
01-05-2008 00:00:00	2008
02-05-2008 00:00:00	2008
03-05-2008 00:00:00	2008
04-05-2008 00:00:00	2008
05-05-2008 00:00:00	2008
06-05-2008 00:00:00	2008
07-05-2008 00:00:00	2008
08-05-2008 00:00:00	2008
09-05-2008 00:00:00	2008
10-05-2008 00:00:00	2008
11-05-2008 00:00:00	2008
12-05-2008 00:00:00	2008
13-05-2008 00:00:00	2008
14-05-2008 00:00:00	2008

[Fig 5.2.2.1 IPL Excel Measures-1]

```
1 Batters Runs = CONCATENATE(SUM(ipl_details[batsman_run]), " Runs")
```

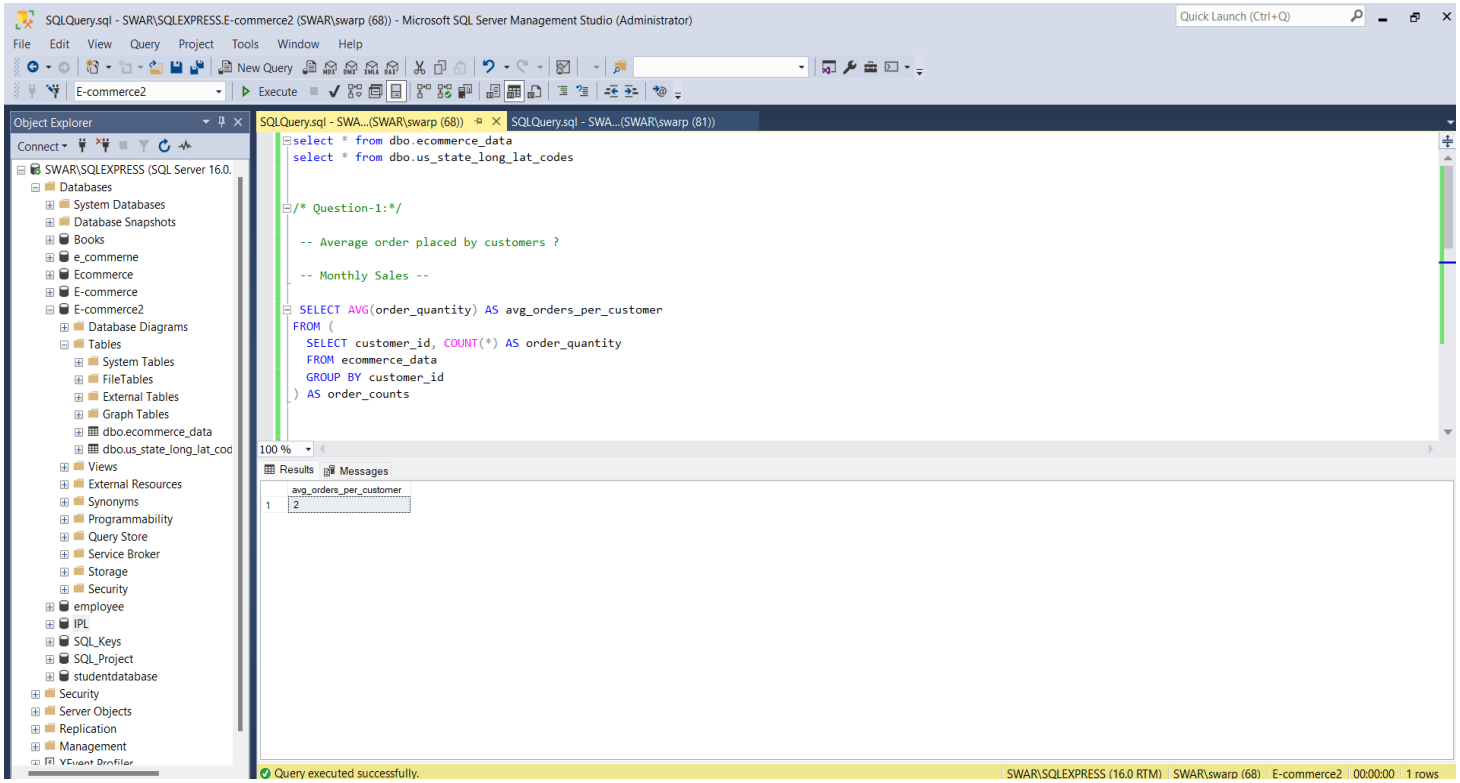
id	innings	overs	ball_number	batter	bowler	non_striker	extra_type	batsman_run	extras_run	total_run	non_boundary	iswicket_delivery	player_ou
1304097	1	0	4	Ishan Kishan	Mohammed Shami	RG Sharma	NA	1	0	1	0	0	NA
1304097	1	6	4	Ishan Kishan	PJ Sangwan	RG Sharma	NA	1	0	1	0	0	NA
1304064	1	0	4	Ishan Kishan	DJ Willey	RG Sharma	NA	1	0	1	0	0	NA
1304064	1	1	4	Ishan Kishan	Mohammed Siraj	RG Sharma	NA	1	0	1	0	0	NA
1304064	1	4	4	Ishan Kishan	PWH de Silva	RG Sharma	NA	1	0	1	0	0	NA
1304060	1	1	4	Ishan Kishan	Rasikh Salam	RG Sharma	NA	1	0	1	0	0	NA
1304060	1	2	4	Ishan Kishan	UT Yadav	RG Sharma	NA	1	0	1	0	0	NA
1304048	1	7	4	Ishan Kishan	AR Patel	RG Sharma	NA	1	0	1	0	0	NA
1254096	1	7	4	Q de Kock	CV Varun	RG Sharma	NA	1	0	1	0	0	NA
1254088	1	0	4	Ishan Kishan	Mohammad Nabi	RG Sharma	NA	1	0	1	0	0	NA
1254088	1	2	4	Ishan Kishan	Mohammad Nabi	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	0	4	Q de Kock	MC Henriques	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	1	4	Q de Kock	DJ Hooda	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	4	4	Ishan Kishan	MC Henriques	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	8	4	SA Yadav	Ravi Bishnoi	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	14	4	SA Yadav	FA Allen	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	15	4	SA Yadav	Mohammed Shami	RG Sharma	NA	1	0	1	0	0	NA
1254062	1	3	4	SA Yadav	Shakib Al Hasan	RG Sharma	NA	1	0	1	0	0	NA
1254062	1	13	4	HH Pandya	M Prasidh Krishna	RG Sharma	NA	1	0	1	0	0	NA
1254062	1	14	4	HH Pandya	CV Varun	RG Sharma	NA	1	0	1	0	0	NA
1216511	1	0	4	Q de Kock	AS Rajpoot	RG Sharma	NA	1	0	1	0	0	NA
1216508	1	4	4	SA Yadav	PJ Cummins	RG Sharma	NA	1	0	1	0	0	NA
1216508	1	8	4	SA Yadav	SP Narine	RG Sharma	NA	1	0	1	0	0	NA
1216508	1	9	4	SA Yadav	Kuldeep Yadav	RG Sharma	NA	1	0	1	0	0	NA
1216508	1	10	4	SA Yadav	SP Narine	RG Sharma	NA	1	0	1	0	0	NA
1216503	1	6	4	Ishan Kishan	JDS Neesham	RG Sharma	NA	1	0	1	0	0	NA

[Fig 5.2.2.2 IPL Excel Measures-2]

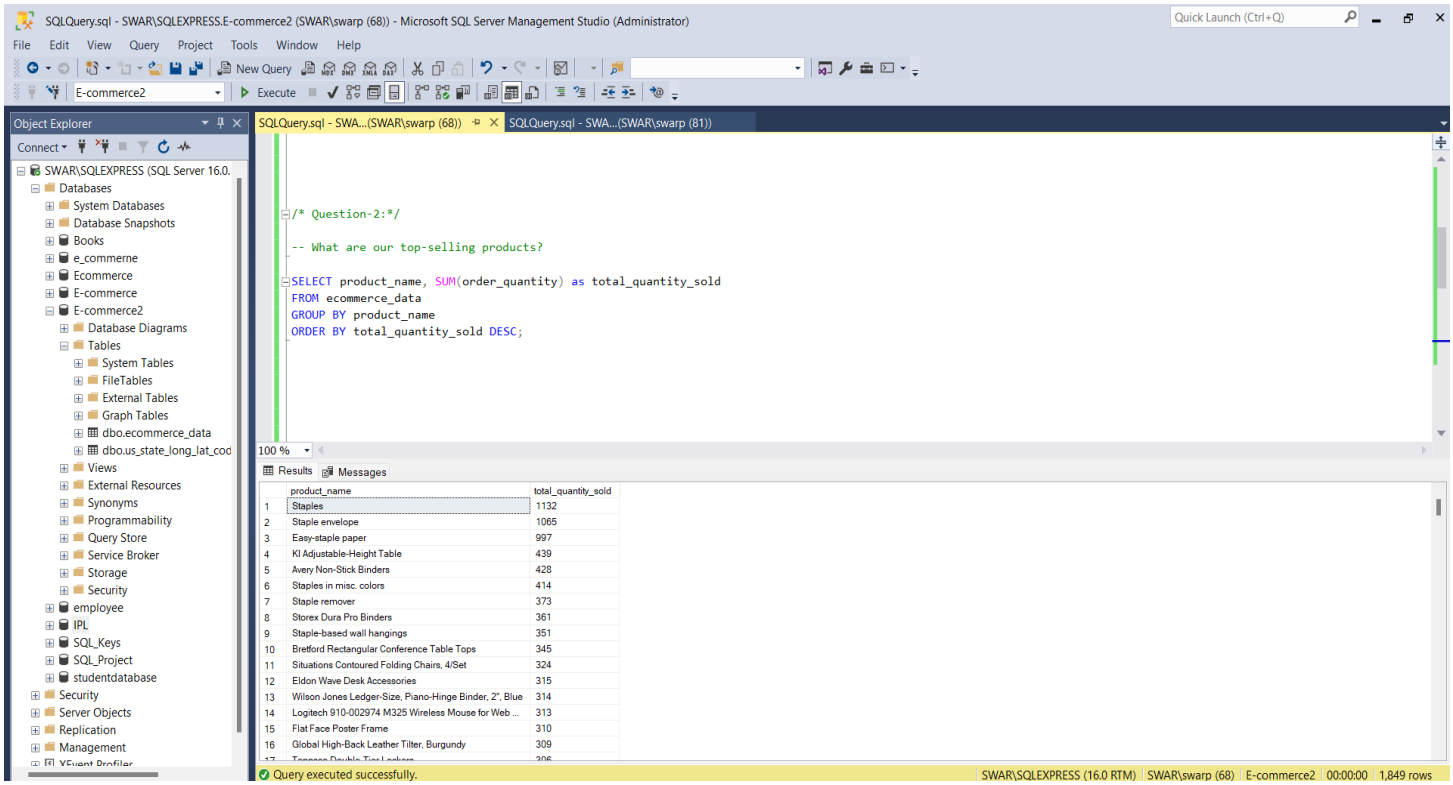
```
1 Bowlers Wickets = CONCATENATE(SUM(ipl_details[iswicket_delivery]), " Wickets" )
```

id	innings	overs	ball_number	batter	bowler	non_striker	extra_type	batsman_run	extras_run	total_run	non_boundary	iswicket_delivery	player_out
1304097	1	0	4	Ishan Kishan	Mohammed Shami	RG Sharma	NA	1	0	1	0	0	NA
1304097	1	6	4	Ishan Kishan	PJ Sangwan	RG Sharma	NA	1	0	1	0	0	NA
1304064	1	0	4	Ishan Kishan	DJ Willey	RG Sharma	NA	1	0	1	0	0	NA
1304064	1	1	4	Ishan Kishan	Mohammed Siraj	RG Sharma	NA	1	0	1	0	0	NA
1304064	1	4	4	Ishan Kishan	PWH de Silva	RG Sharma	NA	1	0	1	0	0	NA
1304060	1	1	4	Ishan Kishan	Rasikh Salam	RG Sharma	NA	1	0	1	0	0	NA
1304060	1	2	4	Ishan Kishan	UT Yadav	RG Sharma	NA	1	0	1	0	0	NA
1304048	1	7	4	Ishan Kishan	AR Patel	RG Sharma	NA	1	0	1	0	0	NA
1254096	1	7	4	Q de Kock	CV Varun	RG Sharma	NA	1	0	1	0	0	NA
1254088	1	0	4	Ishan Kishan	Mohammad Nabi	RG Sharma	NA	1	0	1	0	0	NA
1254088	1	2	4	Ishan Kishan	Mohammad Nabi	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	0	4	Q de Kock	MC Henriques	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	1	4	Q de Kock	DJ Hooda	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	4	4	Ishan Kishan	MC Henriques	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	8	4	SA Yadav	Ravi Bishnoi	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	14	4	SA Yadav	FA Allen	RG Sharma	NA	1	0	1	0	0	NA
1254074	1	15	4	SA Yadav	Mohammed Shami	RG Sharma	NA	1	0	1	0	0	NA
1254062	1	3	4	SA Yadav	Shakib Al Hasan	RG Sharma	NA	1	0	1	0	0	NA
1254062	1	13	4	HH Pandya	M Prasidh Krishna	RG Sharma	NA	1	0	1	0	0	NA
1254062	1	14	4	HH Pandya	CV Varun	RG Sharma	NA	1	0	1	0	0	NA
1216511	1	0	4	Q de Kock	AS Rajpoot	RG Sharma	NA	1	0	1	0	0	NA
1216508	1	4	4	SA Yadav	PJ Cummins	RG Sharma	NA	1	0	1	0	0	NA
1216508	1	8	4	SA Yadav	SP Narine	RG Sharma	NA	1	0	1	0	0	NA
1216508	1	9	4	SA Yadav	Kuldeep Yadav	RG Sharma	NA	1	0	1	0	0	NA
1216508	1	10	4	SA Yadav	SP Narine	RG Sharma	NA	1	0	1	0	0	NA
1216503	1	6	4	Ishan Kishan	JDS Neesham	RG Sharma	NA	1	0	1	0	0	NA

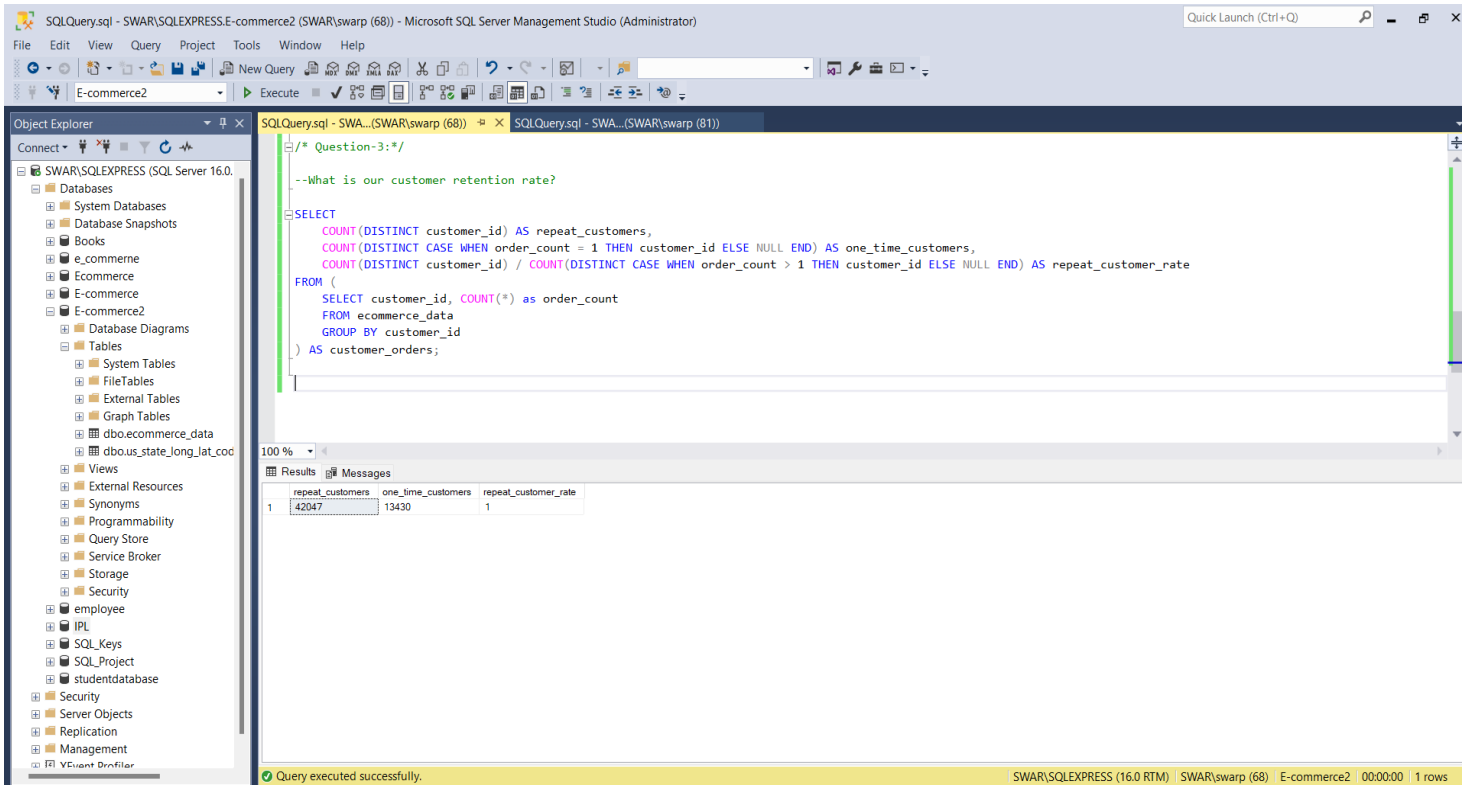
[Fig 5.2.2.3 IPL Excel Measures-3]



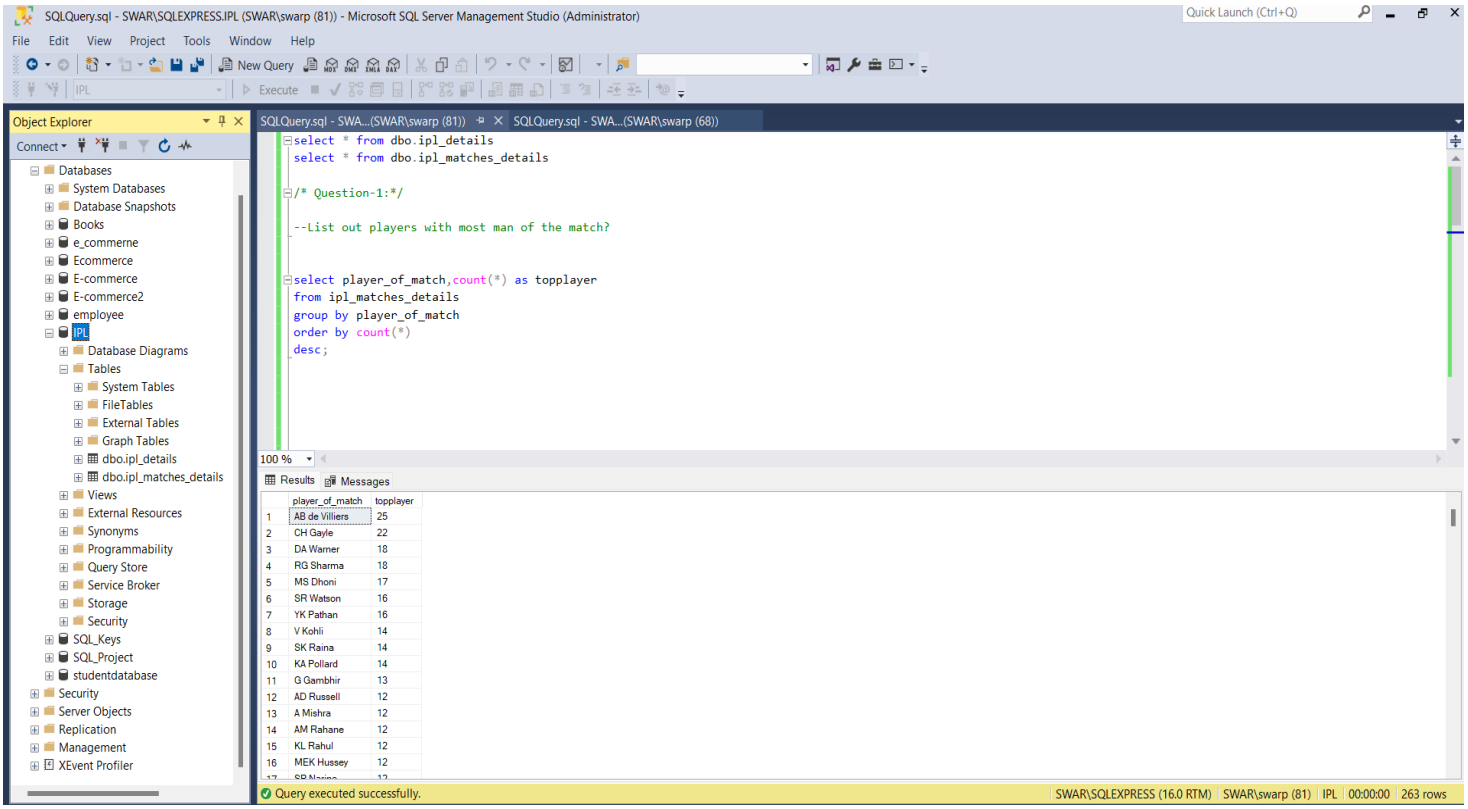
[Fig 5.3.1.1 SQL Project on E-Commerce]



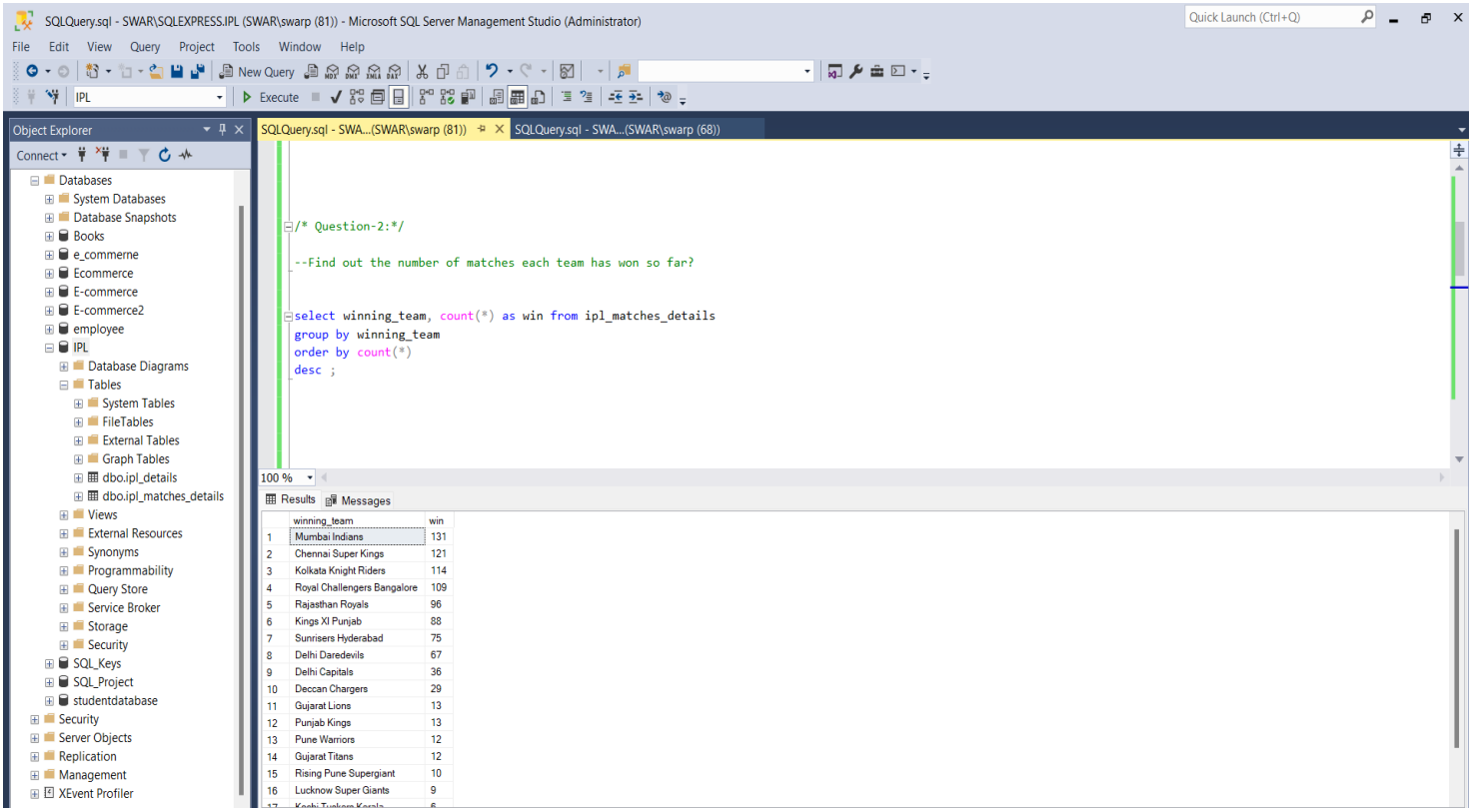
[Fig 5.3.1.2 SQL Project on E-Commerce]



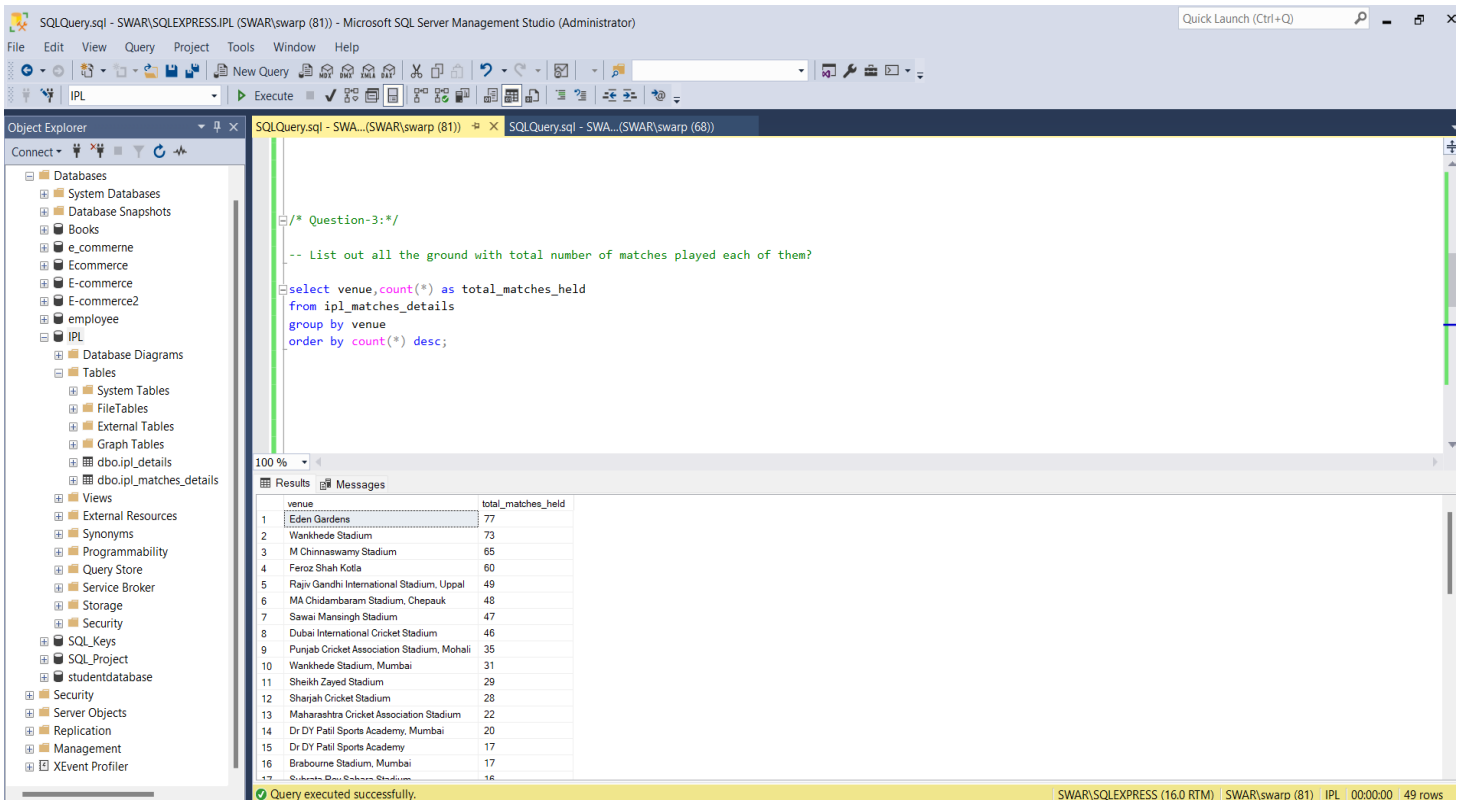
[Fig 5.3.1.3 SQL Project on E-Commerce]



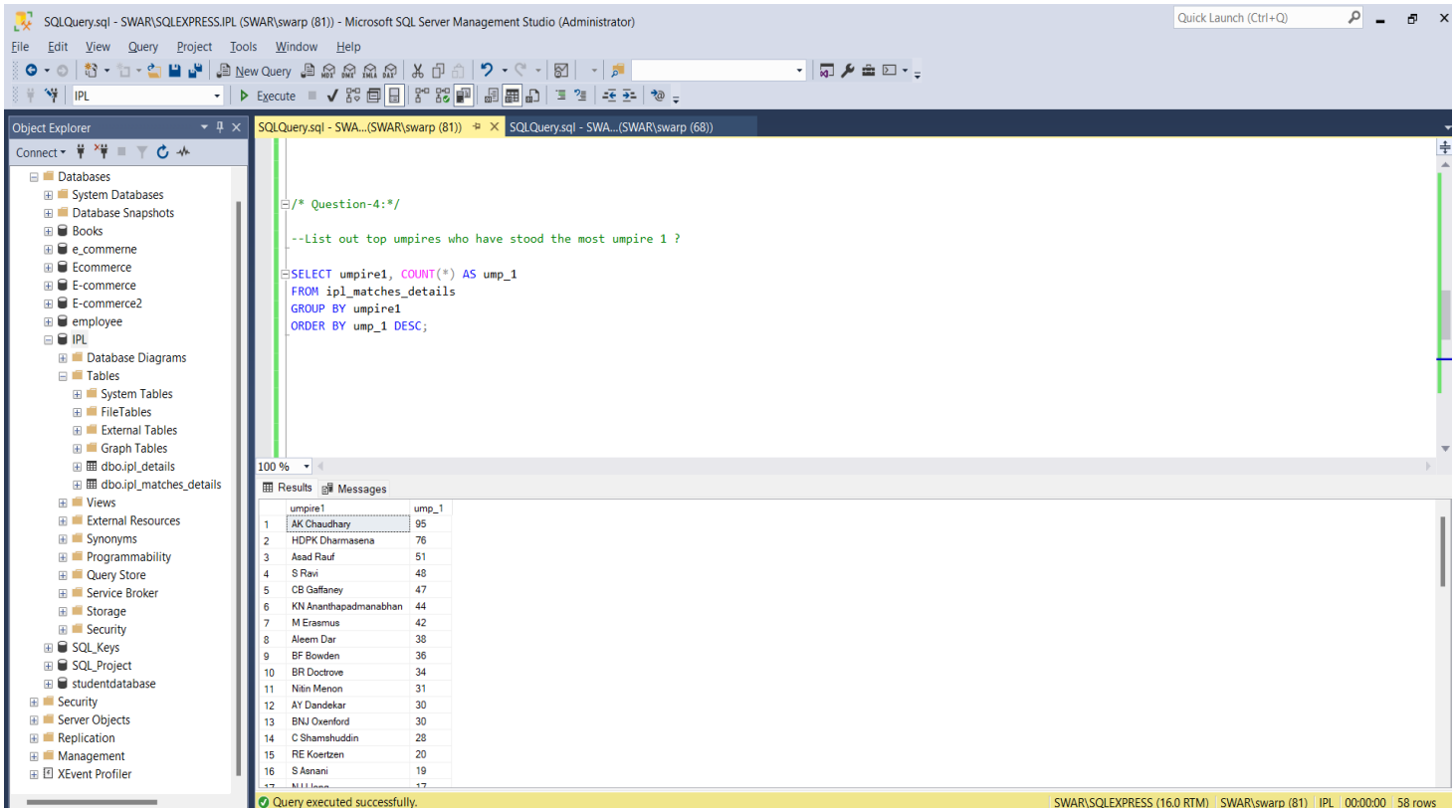
[Fig 5.3.2.1 SQL Project on IPL]



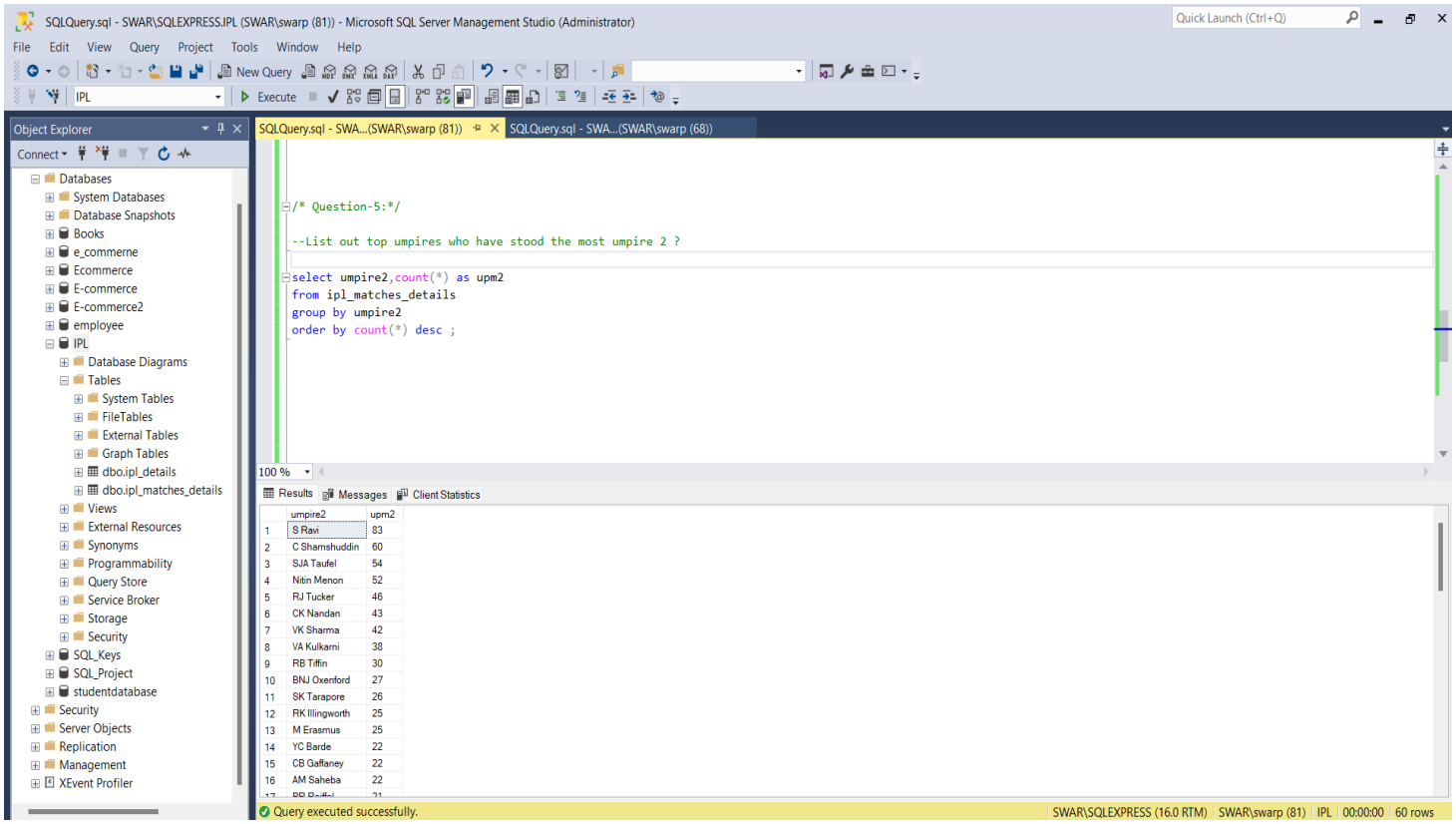
[Fig 5.3.2.2 SQL Project on IPL]



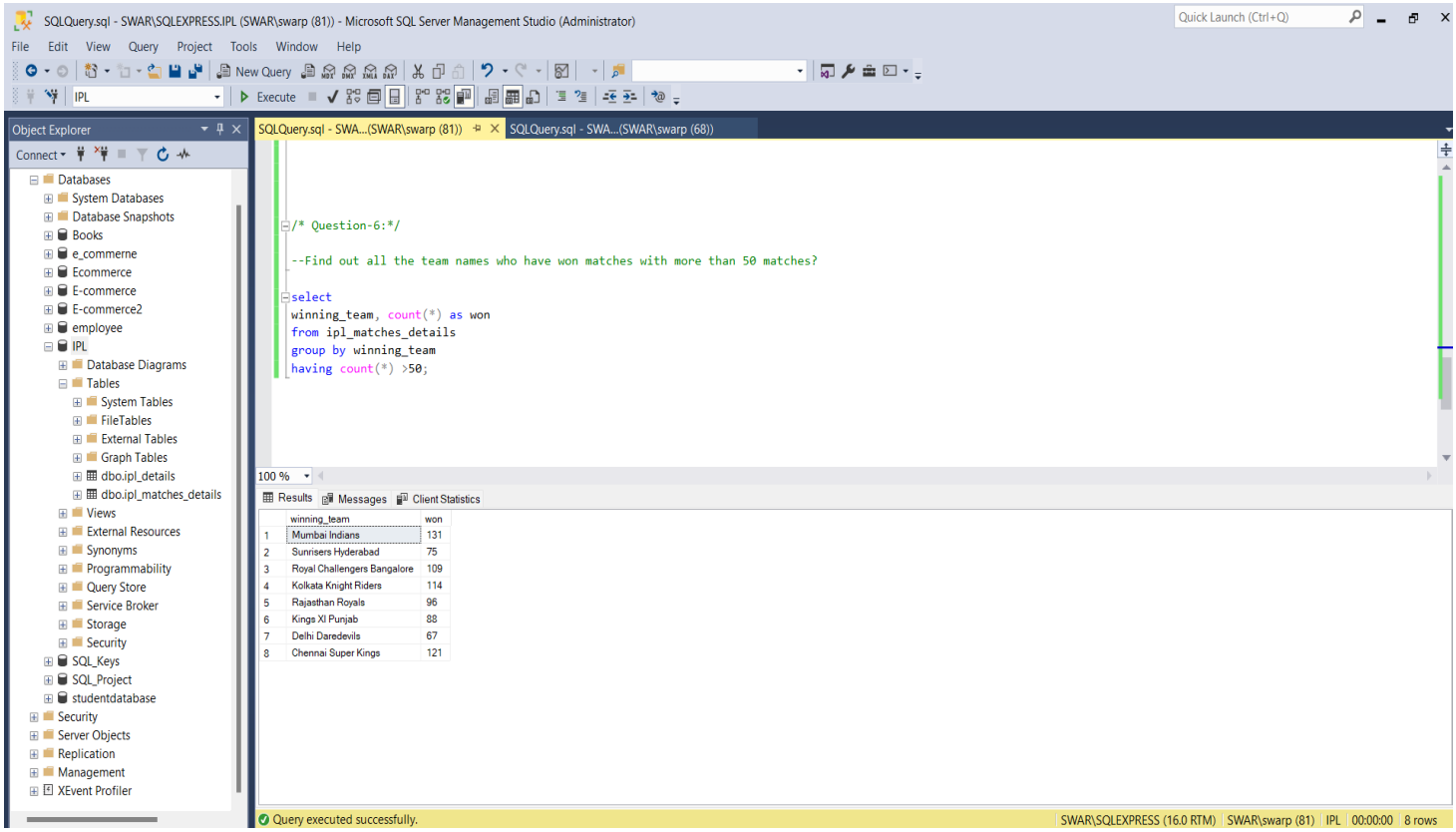
[Fig 5.3.2.3 SQL Project on IPL]



[Fig 5.3.2.4 SQL Project on IPL]



[Fig 5.3.2.5 SQL Project on IPL]



[Fig 5.3.2.6 SQL Project on IPL]

Chapter 6. Implementation

6.1 Process/Program/Technology/Modules Specification

In summary, data analytics involves a process of collecting, cleaning, exploring, analyzing, and visualizing data, using programming languages such as Python and R, technologies such as big data and cloud computing, and modules such as NumPy, Pandas, and Scikit-learn. By using these tools and techniques, data analysts can gain insights and make informed decisions based on data.

- Data Collection, Data Cleaning, Data Exploration, Data Analysis and Data Visualization.
- Python, SQL are used as a Program.
- Big Data, Cloud Computing and Machine Learning are used as Technologies.
- NumPy, Pandas, Matplotlib and Scikit-Learn are used as Modules.

6.2 Finding/Result/Outcomes

6.2.1 Technical Skills

- Data Manipulation
- Data Visualization
- Statistical Analysis
- Programming Languages
- Machine Learning

6.2.2 Soft & Management Skills

- Communication Skills
- Problem-Solving Skills
- Time Management Skills
- Project Management Skills
- Business Acumen

Chapter 7. Conclusion and Discussion

7.1 Overall Analysis of Internship Viabilities

- Due to Internship, I got the knowledge that how to analyze or work on live analysis project in Industrial and Professional Environment.
- Throughout My Internship, I could understand more about an IT Field and prepare Myself for Future.
- During My Training Period, I have received advice from mentors when mistakes were made. However, those advices are useful guidance for me to change myself and avoid myself making the same mistakes again.
- In sum, the activities that I had learned during Industrial Training really are useful for me in future to face challenges in a working environment.

7.2 Limitation and Future Enhancement

- Internship offer wonderful opportunities and are a great way to kickstart a career, blurring the line between education and employment in data analytics.
- I'm considering an Internship, I will be aware of the advantages it can offers me, and maximize these as much as I can.
- Similarly, I will take time to understand and gain more knowledge about my data analytics internship.
- Limitation of Data Analytics like Quality of Data, Bias and Interpretation, Data Security and Privacy and Technical Limitations.
- Future Enhancement in Data Analytics is Artificial Intelligence, Real-Time analytics, Data Visualization, Integration with other Technologies.

References:

- **Website: https://V-Ex Tech software solution**
- **LinkedIn: https://in.linkedin.com/company/v-ex-tech-software-company-in-vadodara**
- **YouTube: (Codelike WE) https://www.youtube.com/@Veer_Agraval**
- **W3School: https://www.w3schools.com/sql/default.asp**
- **Kaggle: https://www.kaggle.com/**
- **GitHub: https://github.com/codebasics**

THANK YOU