



## 2. sql-data-analysis.pdf

### Title: SQL for Data Analysis

#### 1. Introduction to SQL

SQL (Structured Query Language) is used to **store, retrieve, and analyze data** from databases.

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#### 2. Basic SQL Commands

- **SELECT** – retrieve data
  - **INSERT** – add data
  - **UPDATE** – modify data
  - **DELETE** – remove data
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#### 3. Filtering Data

```
SELECT * FROM employees WHERE salary > 50000;
```

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#### 4. Sorting Data

```
SELECT * FROM employees ORDER BY salary DESC;
```

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#### 5. SQL Joins

- INNER JOIN
- LEFT JOIN
- RIGHT JOIN

Example:

```
SELECT e.name, d.department  
FROM employees e  
JOIN department d ON e.dept_id = d.id;
```

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## 6. Aggregate Functions

- COUNT()
  - SUM()
  - AVG()
  - MAX()
  - MIN()
- 

## 7. Grouping Data

```
SELECT department, COUNT(*)  
FROM employees  
GROUP BY department;
```

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## 8. Importance in Data Analytics

SQL is used in:

- Business intelligence
  - Reporting
  - Dashboard creation
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## **9. Conclusion**

**SQL is a must-have skill for every data analyst.**