ITC 6460
Cloud Analysis
— John Willy & Son's Inc

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Background

John Wiley & Sons, Inc., or also known as Wiley, is a well-known publishing company that is famous for publishing books, journals, and encyclopedias. Wiley had developed electronic products and services. It offers more than 200 products and services in electronic products that are in digital formats such as disks, CD-ROM, and web-based solutions

In this project, we are going to perform an analysis of the data transferring process and the cloud security of the migration process using the Amazon Web Services products, including AWS IAM, AWS S3 and AWS Redshift.

Data Storage:

- **AWS Cloud Service:**
  - Identity and Access Management (IAM)
  - S3 bucket
  - Redshift
- **Wiley utilizing Big Data & Cloud Computing in their Products**
- **Migration of data to the cloud**

Frame Work

- **Cloud Services Selection:**
  - **Purpose**: Core element of migration project
  - **Functions**: Access and manage computing resources over the internet
  - **Reasons for Choice**:
    - Scalability
    - Cost-Efficiency
    - Accessibility
    - Data Security and Compliance
    - Data Backup and Recovery

Frame Work

- **Big Data and Cloud Relationship:**
  - **Relevance**: Managing extensive data generated by digital products
  - **Benefits**:
    - Data Storage and Processing
    - Scalability
    - Data Analytics
    - Real-Time Insights
- Cloud services offer scalability, cost-efficiency, and enhanced data management, crucial for Wiley's migration project. Cybersecurity remains a multifaceted priority for data integrity and confidentiality.

Cybersecurity

- **Vendor Services**
  - Vendor Assessment
  - Service Level Agreements (SLAs)

- **Software Upgrades**
  - Automated Patch Management
  - Rollback Plan

- **Hardware Updates**
  - Secure Hardware Procurement:
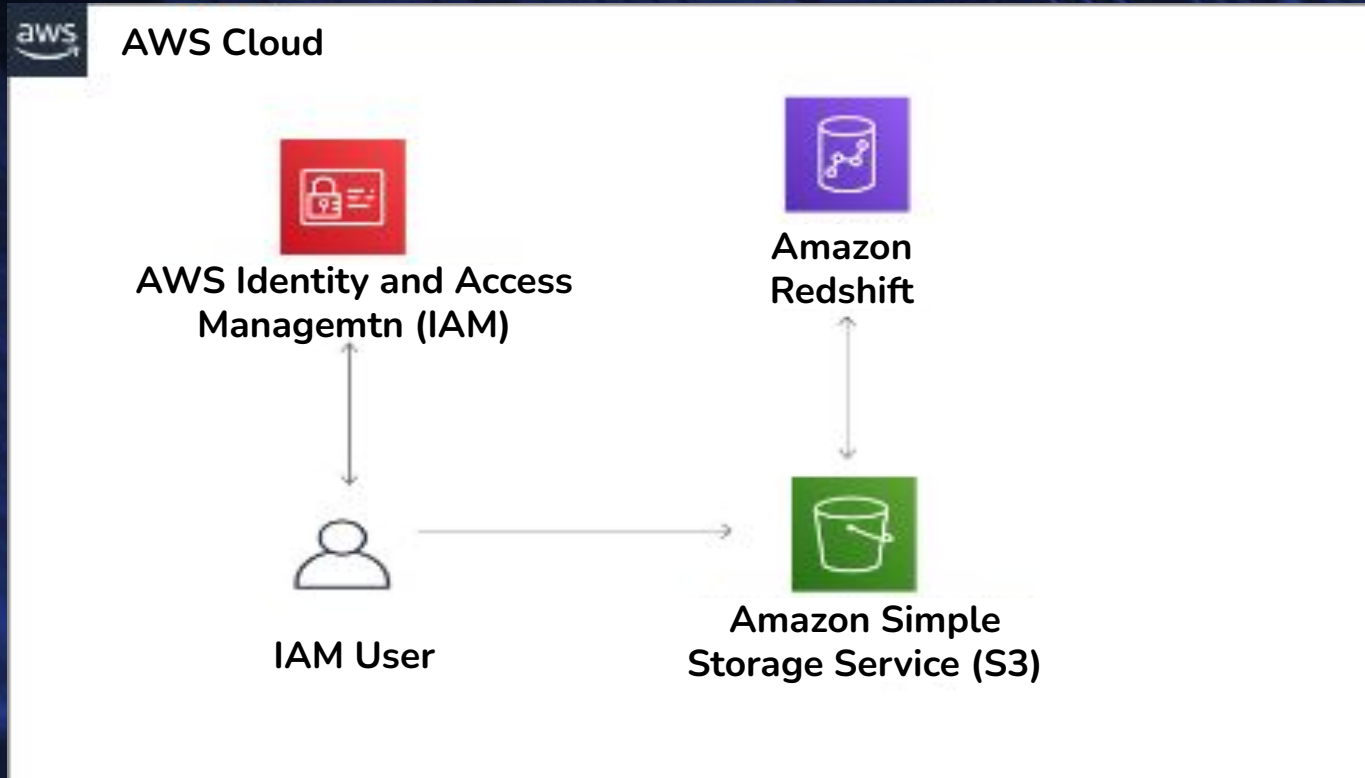 - Regular Audits

Cybersecurity

- **User Security Training**
  - Phishing Awareness Training
  - Password Policies

- **Regular Inspections and Audits**
  - Penetration Testing
  - Vulnerability Scanning
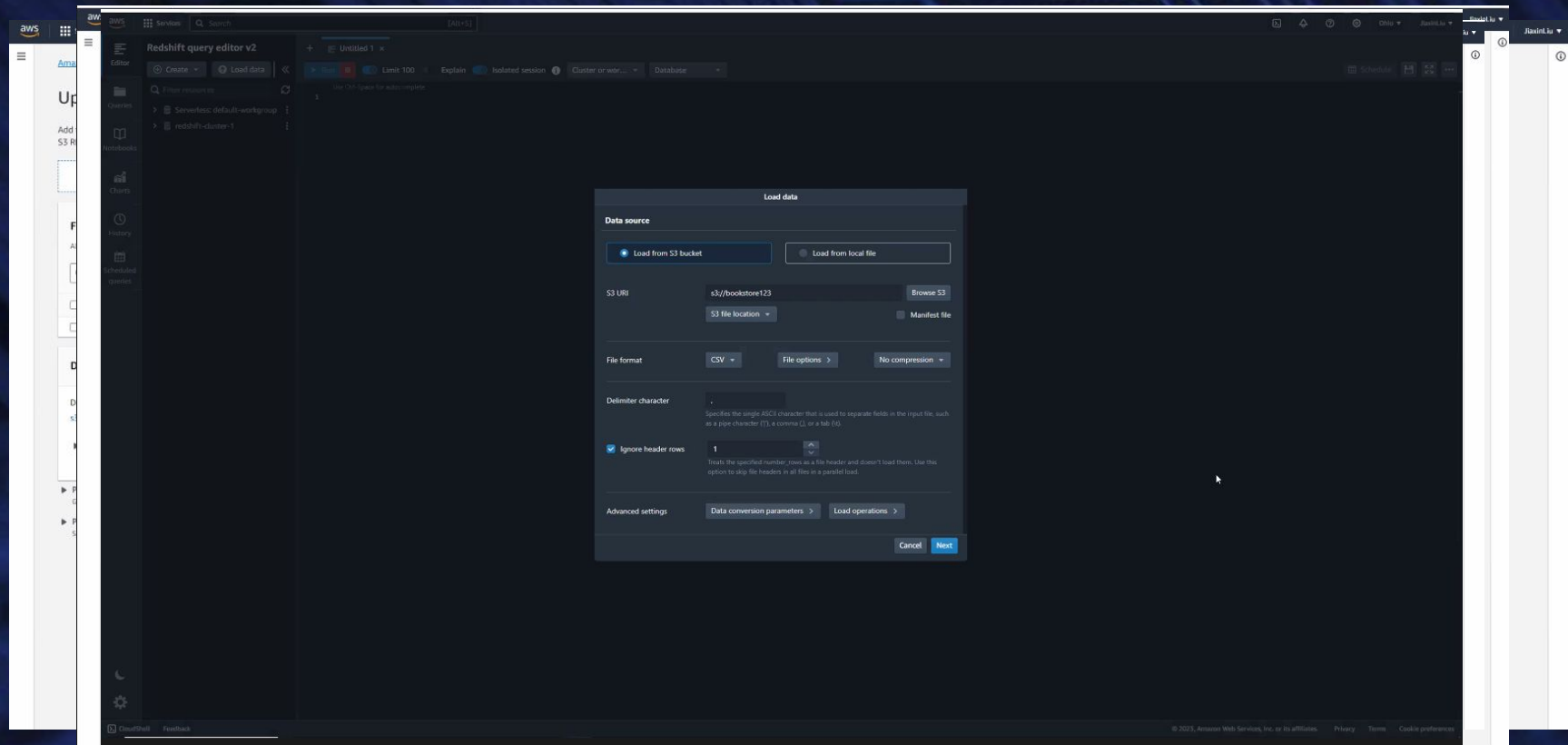
Analyze Data with Amazon Redshift

- **Scalability**

- Performance

- Data Integration

- **Security**

- Backup and Recovery

AWS Architecture

AWS Architecture

SQL Query

```sql
1   SELECT book, author, publisher, book_language
2   FROM   Bookstore123
3   WHERE book_language= 'Spanish';
4
5
```

	book	author	publisher	book_language
1	To Kill a Mockingbird	Harper Lee	HarperCollins	Spanish
2	The Alchemist	Paulo Coelho	HarperOne	Spanish

Find out all the book's languages is Spanish

With the book name, author, publisher, and book language

SQL Query

```sql
1    SELECT book, author, publisher, purchase
2    FROM Bookstore123
3    WHERE purchase >= 100;
4
```

	book	author	publisher	purchase
1	The Great Gatsby	F. Scott Fitzgerald	Scribner	100
2	Pride and Prejudice	Jane Austen	Penguin Classics	1555
3	The Da Vinci Code	Dan Brown	Doubleday	15000
4	The Lord of the Rings	J.R.R. Tolkien	Puffin Books	268
5	The Road	Cormac McCarthy	Pantheon Books	764
6	The Odyssey	Homer N/A	Dover Publications	134

Find out all the book sales are greater than 100

With book name, author, publisher, and purchase amount

PIE Chart

Spanish **10%**

French **5%**

English **85%**
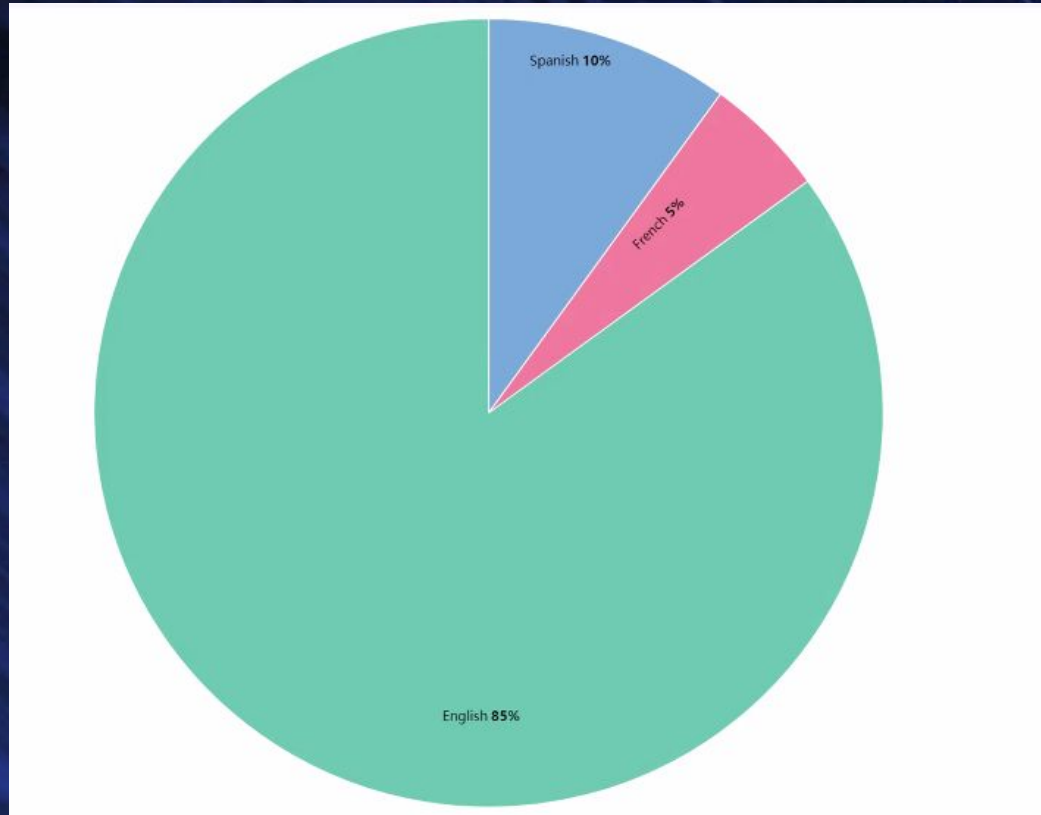
Acceptance Standards

- Mobile Responsivenes

- Fast Loading Times

- User-Friendly Checkout Process

- Detailed Product Information

- Security and Trust

- Regular Updates

- Scalability

Course Reflection and Learning

- AWS for Data Analysis: Recognizing the significance of Amazon Web Services (AWS) for data analysts.

- AWS Service Diversity: Understanding the distinctions among AWS services.

- Industry Excellence: The need to be proficient in AWS for industry success.

- Core AWS Basics: Course contribution in teaching fundamental AWS concepts through practical tasks.

- Future Preparedness: Familiarity with AWS for future career readiness.

Future Envision

- **Plan to add on AWS CloudTrail & CloudWatch**
  - Record API calls made on AWS account
  - Collect & Track metrics, Collect & Monitor log files, Sets alarms
- **Future Incident Response Plan**
  - Adopt a zero-trust model
  - Regular Vulnerability Assesment
  - Foster a Culture of Awareness

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