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Case Study Assignment

SAP Customer Analysis: Royal Greenland

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Part 1: Review Royal Greenland customer story materials

[In this part of the assignment task you'll prepare to join the Royal Greenland project. You'll research the customer's organization and technology landscape, using the customer story materials and other collateral provided to uncover the customer's digital transformation goals. There are four activities to complete:

- Activity 1: Identify the key stakeholders and parties collaborating to deliver the Royal Greenland project and explain the role played by each.
- Activity 2: Identify the digital transformation goals that Royal Greenland wants to achieve by doing the project.
- Activity 3: Explain which digital transformation component (business model, business process, or organizational and cultural transformation) is most impacted in the Royal Greenland case. Give examples.
- Activity 4: Identify key metrics that could help demonstrate the value or success of the SAP implementation at Royal Greenland (for example, saving time, saving cost, reducing errors etc.)]

Activity 1: Identify key stakeholders and explain their roles

[Identify the key stakeholders and parties collaborating to deliver the Royal Greenland project and explain the role played by each. Starting point examples are given below. Use the example to help you determine and complete your response.]

My work:

Key Stakeholders:

The key stakeholders in the Royal Greenland project and their roles are:

1. **Royal Greenland A/S:** As the world leader in seafood, they initiated the project to digitalize the catch registration process, aiming to support local fishing communities and ensure sustainable fishing practices1.
2. **Local Fishermen:** Independent fishermen who provide the catch to Royal Greenland. They benefit from the new digital tools that simplify the catch registration process and help them obtain better prices for their catch.
3. **Trifork Smart Enterprise A/S:** The SAP AppHaus Network member collaborated with Royal Greenland to develop intuitive mobile apps using SAP® Extension Suite and SAP BTP SDK for iOS, both part of SAP BTP.
4. **SAP SE: Provided the SAP Business Technology Platform** (SAP BTP), including SAP HANA® and the SAP Integrated Business Planning for Supply Chain solution, which were essential for the digital transformation of the catch registration process.

Activity 2: Identify digital transformation goals

[In this activity you will identify the digital transformation goals or business outcomes that Royal Greenland wants to achieve by doing the project. A starting point example is given below. Use the example to help you determine and complete your response.]

My work:

Royal Greenland's digital transformation goals are:

- **Simplification of the Catch Registration Process:** By replacing the paper-based process with a digital solution, the goal was to make the process more efficient and less time-consuming for the fishermen.
- **Transparency and Traceability:** The digital solution aimed to provide greater transparency in the supply chain, allowing for better traceability of the catch from the sea to the consumer.

- Sustainability: By ensuring that the catch registration process adheres to sustainability requirements, Royal Greenland aimed to promote sustainable fishing practices.
- **Improved Pricing:** The digital solution aimed to provide better pricing to fishermen by documenting adherence to sustainability requirements.
- **Optimization of Internal Processes:** By digitalizing the catch registration process, Royal Greenland aimed to optimize its internal processes, making them more efficient and cost-effective.
- **Strengthening Supplier Loyalty:** The project aimed to strengthen supplier loyalty by providing tools that make their work easier and more profitable.

Activity 3: Explain which digital transformation component is impacted

[In this activity you will explain which digital transformation component is most impacted in the Royal Greenland case: business model transformation, business process transformation, or organizational and cultural transformation. Once you have identified the component, give an example of this impact in the Royal Greenland case. A starting point example is given below. Use the example to help you determine and complete your response.]

My work:

The following digital transformation component is impacted: [ ]. An example of this is…

In the Royal Greenland case, the digital transformation component most impacted is **Business Process Transformation**. This is evident from the significant changes made to the catch registration process, which was previously manual, paper-based, and time-consuming.
Digitalization of Catch Registration: The introduction of mobile apps for fishermen to submit catch data digitally has streamlined the entire process, making it more efficient and less prone to errors.
Data Integration: The seamless integration between the apps, SAP HANA®, and the SAP ERP application has led to better data management and compliance with legal and customer requirements.
Operational Efficiency: The optimized catch registration process and improved allocation of procurement staff have accelerated the time to market for seafood products.

Activity 4: Identify key metrics to demonstrate SAP solution value

[In this activity you will identify key metrics that could help demonstrate the value or success of the SAP implementation at Royal Greenland (for example, saving time, saving cost, reducing errors, etc.). A starting point example is given below. Use the example to help you determine your response]

My work:

Key metrics that could demonstrate the value or success of the SAP implementation are:

- **Time Savings:** The mobile apps have streamlined the catch registration process, significantly reducing the time fishermen spend on paperwork and data submission.
- **Cost Reduction:** Digitalizing the process eliminates the need for manual data entry, reducing labor costs and the potential for errors that could lead to financial discrepancies.
- **Error Reduction:** The apps improve the accuracy of data capture, which is crucial for compliance and traceability, thereby minimizing the risk of noncompliance penalties.

- **Sustainability Tracking:** The solution aids in documenting MSC certification requirements, ensuring sustainable fishing practices and potentially higher prices for catches.

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Part 2: Understand SAP BTP capabilities

[During the course, we introduced the SAP Business Technology Platform (SAP BTP) as an example of a Platform as a Solution or 'PaaS' product. We explained that BTP is designed to accelerate digital transformation by helping companies quickly, easily, and economically develop the exact application they need without investing in on-premises infrastructure (see Module 3 Lesson 2, Operating Systems and Platforms video). In this part of the assignment, you'll refresh your understanding of SAP BTP capabilities using the provided resources, then complete these activities:

- Activity 1: What are the four (4) main technology capabilities or components of SAP BTP?
- Activity 2: Identify the SAP BTP capabilities Royal Greenland needs to achieve their digital transformation goals. How they are used in the solution described in the customer story?]

Activity 1: Identify SAP BTP technology capabilities

[What are the four (4) main technology capabilities or components of SAP BTP? A starting point example is given below. Use the example to help you determine and complete your response:]

My work:

SAP BTP technology capabilities:

- **Database and Data Management:** This includes services for database management, data storage, and ensuring data quality. It allows for efficient handling of large volumes of data in real-time.
- **Analytics:** SAP BTP provides advanced analytics tools, including predictive analytics, business intelligence, and planning capabilities, to help businesses make informed decisions.
- **Application Development and Integration:** This capability allows businesses to develop, extend, and integrate applications. It supports multiple development environments and provides tools to connect disparate systems.
- **Intelligent Technologies**: This includes machine learning, Internet of Things (IoT), and artificial intelligence services to enable businesses to build intelligent applications and automate processes.

Activity 2: Identify the SAP BTP capabilities needed to achieve customer goals

[In this activity you will name which of the SAP BTP capabilities you think Royal Greenland needs to achieve their digital transformation goals and how these capabilities will be used in the solution described in the customer story. Use the example to help you determine and complete your response]

My work:

Royal Greenland will utilize the following SAP BTP capabilities to achieve their digital transformation goals:

- **Mobile App Development:** Utilizing the SAP BTP SDK for iOS to create native mobile apps for fishermen to submit catch data and for procurement staff to enter additional information required for MSC certification.
- **Integration Services:** Leveraging SAP HANA® and SAP Integrated Business Planning for Supply Chain solution to ensure seamless data flow between the mobile apps, web app, and the SAP ERP application for efficient processing and storage.

- **Analytics and Data Management**: Using SAP HANA® to manage and analyze the data collected from the apps to optimize procurement processes, staff allocation, and to provide transparency and traceability of seafood products.
- **Application Development and Automation:** Employing SAP Extension Suite to build intuitive web and mobile applications that can operate both online and offline, providing fishermen with tools for financial management and budgeting.

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Part 3: Review the end-to-end SAP Solution

[In this part of the assignment, you'll explore the SAP solution in more depth. Before you begin, refresh your understanding of the Royal Greenland landscape by reviewing the case study materials again. There are four activities to complete:

- Activity 1: Describe the end-to-end SAP solution
- Activity 2: Describe the key considerations for system design and development
- Activity 3: Draw a diagram to show how data flows through the solution
- Activity 4: Describe technology areas impacted by further development.]

Activity 1: Describe the end-to-end SAP solution

[Write a paragraph describing the key elements of the end-to-end SAP solution. Hint: Which parts of the solution are the 'front-end' or end-user facing? Which parts of the solution are the 'back-end' – the parts that manage systems, storage, and data? How does SAP BTP connect or integrate the front-end applications and the back-end systems to create the end-to-end solution? What kind of architecture is being used (for example, Private, Public, Hybrid, Multi-Cloud)? For a refresher on the elements of System Design and Development, see Course 2 Module 3. Use the example to help you determine and complete your response.]

My work:

The end solution has the following components:

The end-to-end SAP solution is a comprehensive system that integrates various business processes across an organization. The **front-end** of the solution, which is user-facing, includes applications like **SAP Fiori** that provide a user-friendly interface for interacting with business data and processes. These applications are designed to be intuitive and easy to use, enabling users to perform their tasks efficiently.

The **back-end** of the SAP solution, which manages systems, storage, and data, includes components like **SAP HANA**, a high-performance in-memory database that stores and retrieves data for applications. It also includes **SAP NetWeaver**, a technology platform that provides the technical foundation for SAP applications.

SAP Business Technology Platform (BTP) plays a crucial role in connecting or integrating the front-end applications and the back-end systems. It provides services for database and data management, analytics, application development and integration, and intelligent technologies. It enables the creation of a seamless end-to-end solution by allowing the front-end applications to interact with the back-end systems efficiently.

The architecture of the SAP solution can vary depending on the specific needs of the organization. It can be deployed in a **Private** cloud, where the infrastructure is maintained on a private network, a **Public** cloud, where services and infrastructure are provided off-site over the Internet, a **Hybrid** cloud, which is a mix of private and public clouds, or a **Multi-Cloud** environment, which uses multiple cloud computing and storage services in a single network architecture. This flexibility allows organizations to choose the deployment model that best fits their business requirements and IT strategy.

Activity 2: Describe considerations for system design and development

[Describe the key system and design considerations for the project team as they build the end-to-end solution represented in the App Architecture diagram.Use the example to help you determine and complete your response. Hint: What do you think the project team will have to consider with respect to:

- Computing Models – for example, Compute Network Storage, OnPrem, Cloud?
- Architecture – for example, Private, Public, Hybrid, Multi-Cloud?
- Operating Systems and Platforms – for example, SAP BTP?
- Application Development – for example, Mobile, Web)?
- Programming languages – for example, what languages might be used to develop the different apps?
- Data analytics – for example, what kind of data will need to be captured and analyzed?
- Security – for example, consider which of the five information security layers will be impacted most by the proposed solution (environment, system, application, process, and organization)?]

My work:

The project team will need to consider the following when building the end-to-end solution:

1. **Computing Models**: The team will need to decide whether to use on-premises computing, which can offer more control but may require more maintenance, or cloud computing, which can provide scalability and cost-effectiveness. They may also consider a hybrid approach, using both on-premises and cloud resources.
2. **Architecture**: The team will need to choose between private, public, hybrid, or multi-cloud architectures. This decision will depend on factors such as the organization's security requirements, budget, and the need for scalability.
3. **Operating Systems and Platforms**: The choice of operating system and platform will depend on the specific needs of the application. For example, if the team is developing an SAP application, they may choose to use the **SAP Business Technology Platform (BTP)**.
4. **Application Development**: The team will need to consider the type of application they are developing. For example, if they are developing a mobile application, they may need to consider factors such as the user interface, performance, and compatibility with different mobile operating systems.
5. **Programming Languages**: The choice of programming language will depend on the specific requirements of the application. For example, the team may choose to use Java or ABAP for backend development, and JavaScript or HTML5 for frontend development.
6. **Data Analytics**: The team will need to consider what kind of data will need to be captured and analyzed. This could include transactional data, customer behavior data, or operational data. They will also need to consider how this data will be stored and processed.
7. **Security**: Security is a critical consideration in any system design. The team will need to consider which of the five information security layers (environment, system, application, process, and organization) will be most impacted by the proposed solution. They will also need to implement appropriate security measures at each layer to protect the system and its data.

Activity 3: Draw a diagram to show how data flows through solution

[A simple flow diagram with descriptive labels is sufficient here; it does not need to be a full logical design. To develop your diagram, you can either:

- Use the Data Flow Diagram Template (follow the link provided on the course page to open a Google Slides document) as a starting point. In the template, you can match the data labels to the correct box and then identify the tool represented; or
- Draw the diagram free hand on paper; or
- Develop the diagram in a drawing app (e.g. MS Procreate).

Select, copy and paste your diagram slide, picture, or screenshot below so that it is included in your final Case Study Assignment document. In your diagram, show the linkages between how and where data is:

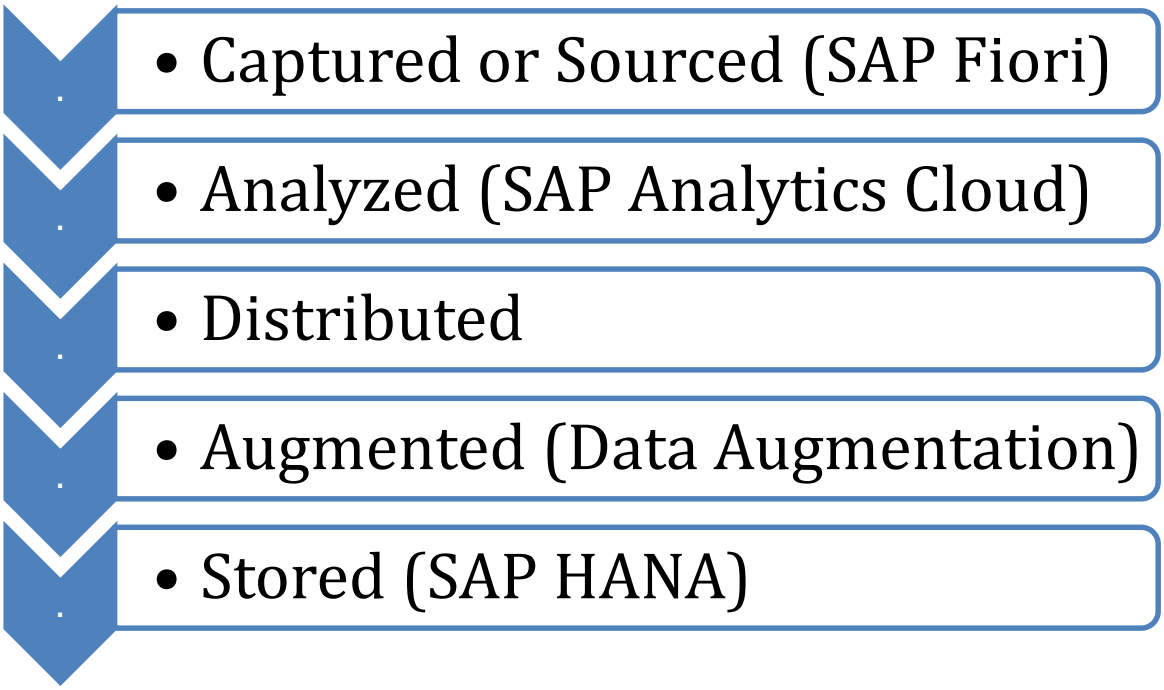
- Captured or Sourced (for example, through application(s)?)
- Analyzed (for example, analytics or business intelligence software?)
- Distributed (that is, where is data sent to – for example, other systems?)
- Augmented (that is, where more information or data is added to existing records)
- Stored (for example, database(s)?

Tip: to save time when completing Part 5, copy your diagram slide into your final Executive Summary deck to cover this activity in your findings summary.]

My work:

Data flow through the solution

[Insert your completed diagram here]



Activity 4: Describe technology areas impacted by further solution development

The Future Plans paragraph in the Royal Greenland customer story (web page article) describes the scenarios Royal Greenland has for future development, including “building an e-commerce platform for buying fishing equipment and using apps to help authorities find boats that are lost at sea” and “innovating in the area of financial literacy, providing fishers with an overview of their finances as well as tools to help them set budgets and build savings”. Imagine that these potential projects are moving forward. As a technology consultant, part of your role is to help advise Royal Greenland on the use of information technology to meet the business objectives described in these scenarios.

My work:

The technology areas impacted by further development include:

Based on the Royal Greenland customer story, here are the technology areas that would be impacted by the further development of their solutions:

- **E-commerce Platform**: The creation of an online platform for purchasing fishing equipment would involve technologies related to **web development**, **secure payment processing**, and **inventory management** systems.
- **Search and Rescue Apps**: Developing applications to assist authorities in locating lost boats would require **GPS tracking**, **data analytics**, and **communication technologies** to ensure real-time updates and coordination.
- **Financial Literacy Tools**: Providing fishermen with financial overviews and budgeting tools would involve **personal finance software**, **data security**, and **user-friendly interface design** to ensure ease of use and protection of sensitive information.

These advancements would support Royal Greenland’s business objectives by enhancing operational efficiency, improving safety measures, and empowering local fishermen with financial management skills.

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Part 4: Assess how the SAP solution supports digital transformation

[In this part of the assignment, we'll look at the big picture – how does implementing the end-to-end SAP solution help Royal Greenland meet its digital transformation goals and become an intelligent and sustainable enterprise? Review the resources provided to refresh your understanding of what is meant by the term "intelligent, sustainable enterprise". Then complete the activities:

- Activity 1: Describe how SAP BTP supports Royal Greenland's digital transformation goals and its journey toward becoming an intelligent and sustainable enterprise.
- Activity 2: Identify the elements of the SAP project and solution that contribute to Royal Greenland's Quadruple bottom line (People, Planet, Profit, and Purpose)]

Activity 1: Describe how SAP BTP supports customer digital transformation goals

[Write a short paragraph describing how implementing SAP BTP supports Royal Greenland's digital transformation goals and its journey toward becoming an intelligent and sustainable enterprise. Use the example to help you determine and complete your response]

My work:

SAP BTP supports Royal Greenland's digital transformation goals by:

Implementing SAP Business Technology Platform (SAP BTP) has significantly supported Royal Greenland's digital transformation goals by enabling the development of intuitive mobile and web applications that streamline and digitize critical business processes. With SAP BTP, Royal Greenland has transformed its catch registration process from a cumbersome, paper-based system to a digitalized, efficient workflow. This has not only improved the documentation of goods and reduced the risk of error and noncompliance but also optimized staff allocation and sped up the time to market. The platform's integration capabilities have allowed for seamless data flow between the apps, SAP HANA®, and the SAP Integrated Business Planning for Supply Chain solution, further enhancing operational efficiency. As a result, Royal Greenland is strengthening supplier loyalty, supporting local fishing communities, and reinforcing its commitment to sustainability, all while boosting fishermen's income and the company's bottom line1. This journey towards becoming an intelligent and sustainable enterprise is a testament to the power of digital transformation through SAP BTP.

Here's a summary of how SAP BTP supports Royal Greenland's digital transformation:

- **Simplifying Processes**: Digitalizing the catch registration process, making it easier for fishermen and reducing manual data entry.
- **Enhancing Transparency**: Providing the data needed for product traceability and quality control, meeting legal and customer requirements.
- **Optimizing Operations**: Improving the allocation of procurement staff and speeding up the time to market for seafood products.
- **Empowering Fishermen**: Offering user-friendly mobile apps that help fishermen document sustainability efforts and potentially earn better prices.

Activity 2: Identify how the SAP solution contributes to the Quadruple bottom line

[Identify the elements of the SAP project and solution that contribute to Royal Greenland's Quadruple bottom line (People, Planet, Profit, and Purpose). Use the example to help you determine and complete your response]

My work:

People	Planet	Profit	Purpose
The solution supports local fishermen and their communities by providing digital tools that simplify the procurement process, ensuring their well-being and prosperity.	By digitalizing the catch registration process, the solution helps in maintaining sustainable fishing practices, which is beneficial for the environment	The digitalization of data and optimization of the catch registration process lead to better prices for fishermen and a stronger market position for Royal Greenland, enhancing profitability.	The solution aids in fulfilling legal and customer quality control requirements, ensuring product traceability and supporting the financial benefits of Marine Stewardship Council certification. This aligns with the company's commitment to sustainability and ethical practices.

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Part 5: Prepare Executive Summary Deck

Based on the current page content, here is an executive summary for the deck:

- **Sustainability and Community Support**: Royal Greenland A/S values sustainability and the well-being of local fishing communities, with a history spanning over 200 years in the seafood industry.

- **Digital Challenges**: The company faced an inefficient and time-consuming catch registration process, requiring fishermen to fill out paperwork in the cold and walk long distances to procurement offices.
- **Technological Solution**: In partnership with Trifork Smart Enterprise A/S and using the SAP® Business Technology Platform, Royal Greenland developed mobile apps to simplify the catch registration process and enhance product transparency.
- **Positive Outcomes**: The digitization of data improved product documentation, reduced errors and non-compliance, and optimized the catch registration process, strengthening the company's market position and benefiting local fishermen.