Requirements analysis

## Project Overview:

***Project Title***: Advantages and disadvantages of RFID technology in retail and inventory management A comprehensive analysis

***Research Team***:

* *Coordinator:* Anca Maria Nica
* *Team members:*

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***Project Purpose***: Analyze and present a comprehensive overview of the advantages and disadvantages of RFID technology in retail and inventory management

## Project Objectives

* To Understand RFID Technology in Retail and Inventory Management
* To Identify the Key Advantages of RFID in Retail and Inventory Management
* To Examine the Impact on Inventory Accuracy
* To Analyze Real-Time Tracking Capabilities
* To Investigate the Role of RFID in Loss Prevention
* To Address Privacy and Security Concerns
* To Summarize Findings and Conclusions

## Use Case Scenarios

1. Real-Time Inventory Tracking

**Actors**: Store staff, RFID system

**Scenario**: Store personnel use RFID handheld readers to check inventory in real time. The RFID system instantly updates the inventory database and helps staff identify and reorder items that are low on stock.

1. Anti-Theft and Security

**Actors**: Store security, RFID system

**Scenario**: RFID tags on high-value items trigger an alarm if they are removed from the store without deactivation. Security personnel respond immediately, reducing the number of thefts.

1. Customer Checkout

**Actors**: Customers, RFID-enabled checkout system

**Scenario**: Customers place their shopping carts in a designated area with RFID readers. The system automatically totals the items and generates the invoice, reducing checkout time and human error.

1. Price Verification

**Actors**: Store staff, RFID price-checking stations

**Scenario**: Store employees use RFID price check stations to verify price accuracy and ensure price tags match RFID-tagged items, reducing pricing errors.

1. Supply Chain Visibility

**Actors**: Suppliers, Distribution Centers, Retail Stores

**Scenario**: Suppliers and distribution centers use RFID to track shipments. Retail stores receive real-time updates on incoming products, which helps with demand planning and reduces out-of-stock situations.

## Bibliography

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