MOBILE ENTERPRISE PILOT PROJECT

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PROBLEM STATEMENT

"After the company's strategic planning meeting, top administration approve a funding of $60,000 for an Enterprise Mobility Pilot Project to explore a new mobile technology with business intelligent so that the company can stay innovative, competitive and possibly increase their capabilities, revenue/sales, and expand their global markets."

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OBJECTIVES

1. **Conduct Just-in-Time study and define terms**
2. **Review related technologies and services from major firms**
3. **Conduct initial risk assessment**
4. **Develop project plan showing tasks and milestones**

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PROPOSED PILOT PROJECT

- **Mobile sales application that shows real-time data from the inventory system.**
    - Hope to increase revenue and sales
    - Allows sales team to be mobile with up to date information from the inventory
    - Submit orders directly from the app

- **Production and stock managers would use a different interface to update inventory**

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WIREFRAME OF PROPOSED APPLICATION

Product Search shows product details and allows sales person to add to an order.

Customer information can be entered to complete an order.

A summary screen showing the items to be ordered.

Welcome Username
Available Products
Product Name Dropdown Menu ▼

Product Details
id description

Product Image

qtyAvailable   qtyToOrder
price
Add to Order   Complete Order

Enter Customer Information

Customer Name

Address

City   State Zip

Phone

Finalize Order

Completed Order

Customer Name

Ordered Items
id description   qtyOrdered price
id description   qtyOrdered price
id description   qtyOrdered price
id description   qtyOrdered price

Total Price
Notification: Order Submitted

Submit Order

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JUST-IN-TIME STUDY

- **Mobile Application Data**
  - Sets of qualitative or quantitative variables used within the application.
  - Product ID, Customer ID, Sales Person ID, and other IDs
  - Quantities
  - Descriptions
  - Prices
  - Customer information such as name, address, and phone number
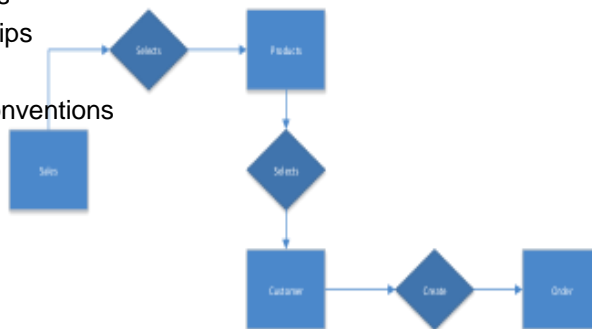
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DATA REQUIREMENTS

- **Mandated guidelines of how the data is used within or transferred with the mobile application.**

- **Requirements can be set internally or given by a regulatory agency depending on the data types.**

- **For example, unique IDs given to members of the sales team or the security surrounding customer data.**

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DATA MODELING

- **Conceptualization of processes and events used within software development [3].**

- **Relationships or associations can be viewed from a high level in its entirety [3].**

- **Data modeling typically shows**

  - Entity types
  - Relationships
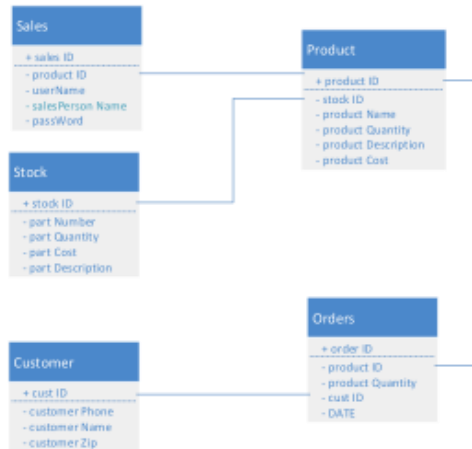 - Attributes
  - Naming conventions
  - Keys

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DATA STRUCTURES

Method of storing and organizing data in order to efficiently relate data together.

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DATA STORES

- **Data repositories of related objects stored in a database.**

- **Typically refers to databases such as SQL or Oracle.**
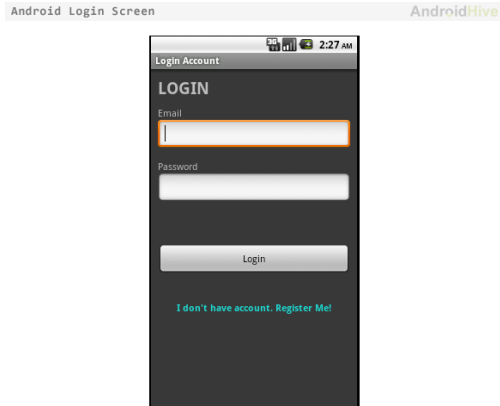
- **Can also be flat files like CSVs.**

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DATA ACCESS

- **Data access is the authorization and authentication to the data stored or used within the mobile application.**

- **Data access can be sequential access or random access in terms of reading and writing data stored on physical media.**
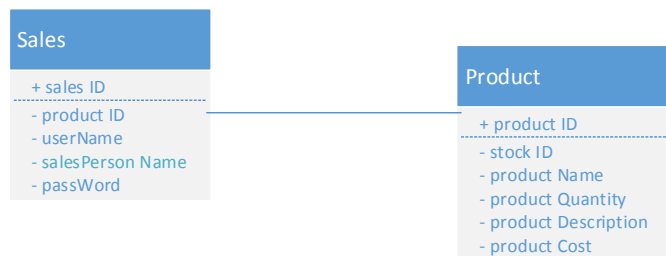

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QUERY PROCESSING

Query processing is a request for information from a database.

- **For example, a product ID query within the app would return:**
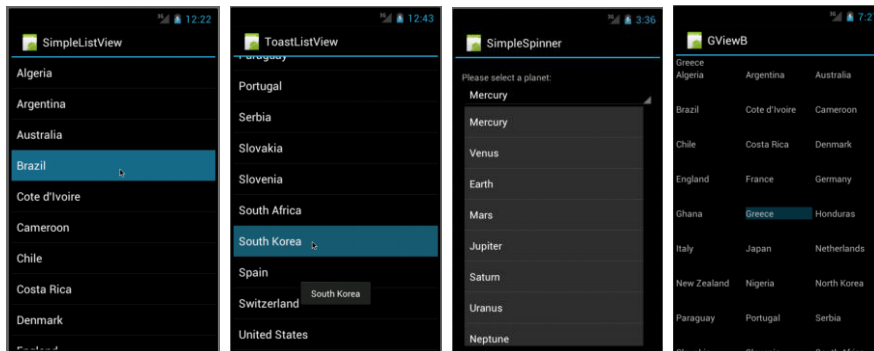 - product name
  - description
  - quantity available
  - price.

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DATA PRESENTATION

- **Visualize data within an application or database allowing for better interpretations and conveyance of information.**

- **Data can be viewed as:**

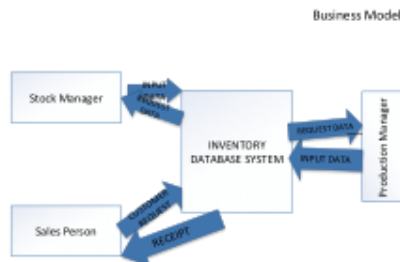| Spinner	ListView
Toast	GridView

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BUSINESS PROCESS MODEL

- **Business process modeling is a conceptual model of how a business operates.**

- **Business activities are mapped into processes in order to analyze and improve the operation of the business.**

- **The model can be either very formal with detailed descriptions of every process, or the model can only show the conceptual relationships.**

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WEB SERVICES

Web-based data transfer between various systems using open standards like XML. End users may trigger web services, but do not directly interact with the data [1].

SERVICE ORIENTED ARCHITECTURE

Service oriented architecture is an underlying framework to allow different systems to communicate. Program interactions often operate independently and allow one system to perform work as another [2].

CLOUD COMPUTING

Cloud computing consists of many different technologies. Typically, software or hardware services are rendered over the Internet. Web applications, virtual desktops, and data storage could all be considered cloud computing if utilized through the Internet.

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RELATED MOBILE TECHNOLOGIES

Major firms with mobile enterprise apps. In-house design allows for customization.

- **IBM**
- **SAP**
- **Intel**
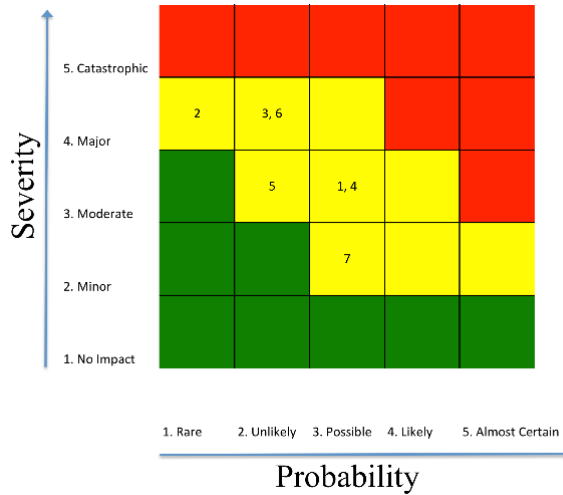- **Microsoft**
- **AirWatch**

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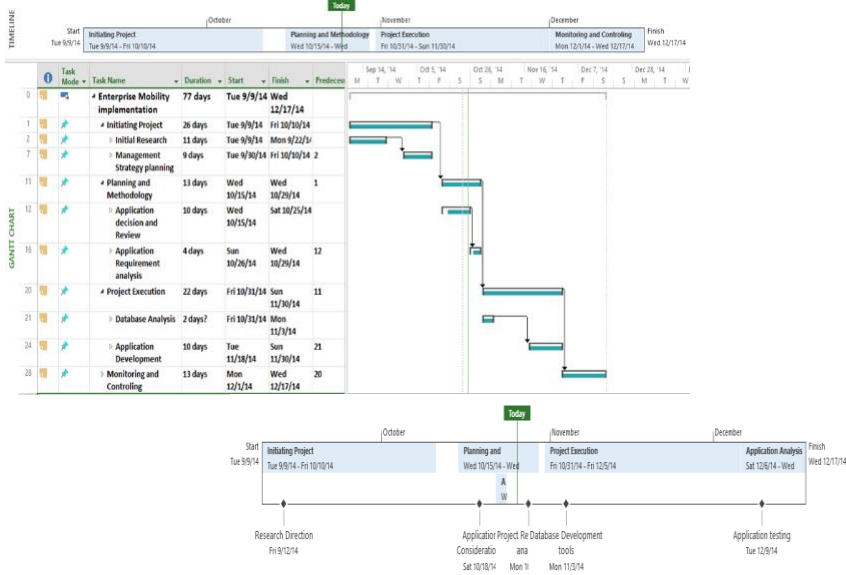
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RISK ASSESSMENT

Potential Risks

1. **Loss of network connectivity**
2. **Device failure from accidental damage**
3. **Battery fails to hold charge**
4. **Insecure or weak password**
5. **Man-in-the-middle attacks**
6. **Data loss**
7. **Software bugs**

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PROJECT MANAGEMENT

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REFERENCES

[1] "Web services definition from PC Magazine Encyclopedia," *PCMag*, 2014. [Online]. Available: http://www.pcmag.com/encyclopedia/term/54345/web-services. [Accessed: Oct. 25 2014].

[2] M. Rouse, "Service-Oriented Architecture (SOA), *TechTarget.com*, August 2008. [Online]. Available: http://searchsoa.techtarget.com/definition/service-oriented-architecture. [Accessed: Oct. 25 2014].

[3] S. Ambler, "Data Modeling 101," *agiledata.com,* 2014. [Online]. Available: http://www.agiledata.org/essays/dataModeling101.html. [Accessed: Oct. 26 2014].

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