

Chapter-1

☰ Tags	Assignment
--------	------------

1. Define E-Commerce and E-business

EC (electronic commerce) and e-business are often used interchangeably, but there is a subtle difference between the two terms.

E-commerce is the buying and selling of goods and services online. This includes transactions such as purchasing a product from an online retailer, booking a hotel room online, or paying for a service online.

E-business, on the other hand, is a broader term that encompasses all aspects of conducting business online. |

This includes

- e-commerceonline marketing
- customer service
- supply chain management.

E-business concept

In other words, e-commerce is a subset of e-business. E-commerce is focused on the buying and selling of goods and services, while e-business encompasses all aspects of running a business online.

Here is a table that summarizes the key differences between e-commerce and e-business:

Feature	E-commerce	E-business
Focus	Buying and selling of goods and services online	All aspects of conducting business online
Scope	Narrower	Broader
Examples	Purchasing a product from an online retailer, booking a hotel room online, paying for a service online	Online marketing, customer service, supply chain management

2. Difference between pure and partial E-commerce

Feature	Pure e-commerce	Partial e-commerce
Product type	Digital goods and services	Physical goods and services

Transaction process	Entirely online	Combination of online and offline
Fulfillment	Downloadable or streamable	Physical delivery
Inventory management	Not required	Required
Examples	iTunes, Netflix, Amazon Kindle	Amazon, Walmart, Target

Pure e-commerce refers to the sale of goods and services that are entirely digital in nature, such as software, music, movies, and e-books. These transactions are conducted entirely online, and the goods and services are delivered to the customer electronically.

Partial e-commerce, also known as click-and-mortar or bricks-and-clicks e-commerce, refers to the sale of goods and services that can be purchased online but are delivered physically. This type of e-commerce combines online and offline channels, and it is often used by traditional brick-and-mortar businesses to expand their reach.

3. Define intranet and extranets

Intranet and Extranet: Definitions and Differences

Intranet:

- **Definition:** A private network within an organization that is used for internal communication and collaboration.
- **Key features:**
 - Access restricted to authorized employees
 - Used for sharing information, resources, and tools
 - Can include features such as discussion forums, knowledge bases, shared calendars, and project management tools
 - Improves communication, collaboration, and overall efficiency within a company

Extranet:

- **Definition:** A private network that extends the intranet to authorized external users, such as partners, vendors, and customers.

- **Key features:**

- Limited access to certain parts of the intranet for specific external users
- Facilitates communication and collaboration with external partners without compromising security
- Used for sharing information such as project updates, documents, and order status
- Improves efficiency and strengthens relationships with external stakeholders

Key Differences:

Feature	Intranet	Extranet
Accessibility	Internal employees only	Authorized external users + internal employees
Purpose	Internal communication and collaboration	Secure collaboration with external partners
Information Shared	Company resources, announcements, internal documents	project updates, shared documents, order status
Security	Tighter control, limited access	Controlled access for specific users and activities

4. list major components of EC-frameworks

1. **Front-end:** The front-end is the part of the website that users interact with. It is responsible for displaying the website's content and allowing users to interact with it. The front-end is typically written in HTML, CSS, and JavaScript.
2. **Back-end:** The back-end is the part of the website that is responsible for storing and processing data. It is typically written in a server-side programming language such as Python, Java, or PHP.
3. **Database:** The database is where all of the website's data is stored. It is typically a relational database management system (RDBMS) such as MySQL or PostgreSQL.
4. **Application server (java: controller):** The application server is the software that runs the back-end code. It is responsible for

processing requests from the front-end and sending responses back.

5. **Web server:** The web server is the software that delivers the website's content to users. It is responsible for receiving requests from users' browsers and sending back the requested content.
6. **Payment gateway:** The payment gateway is a secure online service that processes credit card and other online payments. It is responsible for verifying the customer's payment information and authorizing the transaction.
7. **Shipping and fulfillment:** Shipping and fulfillment is the process of picking, packing, and shipping orders to customers. It is typically outsourced to a third-party logistics provider (3PL).
8. **Customer relationship management (CRM):** A CRM system is a software that helps businesses manage their customer relationships. It is used to track customer interactions, store customer data, and manage marketing campaigns.
9. **Analytics:** Analytics is the process of collecting, analyzing, and interpreting data to gain insights into customer behavior and website performance. It is typically done using a web analytics tool such as Google Analytics.
10. **Security:** Security is essential for protecting e-commerce websites from cyberattacks. It is important to have a strong security policy in place and to use a variety of security measures such as firewalls, intrusion detection systems, and encryption.

5. list five benefits to customer , organization and society

Benefits for Customers

- **Convenience:** Customers can shop from the comfort of their own homes, at any time of day or night. They can also compare prices from different retailers and read product reviews before making a purchase.
- **Variety:** E-commerce retailers often have a wider variety of products and services than traditional brick-and-mortar stores. This gives

customers more choices and allows them to find exactly what they are looking for.

- **Lower Prices:** E-commerce retailers often have lower overhead costs than traditional stores, which can translate into lower prices for customers.
- **Customization:** E-commerce platforms often allow customers to customize their products or services, such as by choosing the color, size, or design. This gives them a more personalized experience.
- **24/7 Customer Support:** E-commerce retailers often offer 24/7 customer support, which means that customers can get help with their purchases at any time of day or night.

Benefits for Organizations

- **Reduced Costs:** E-commerce can help organizations reduce their costs by eliminating the need for physical stores, inventory management, and sales staff.
- **Increased Reach:** E-commerce allows organizations to reach a wider audience of potential customers, both domestically and internationally.
- **Improved Efficiency:** E-commerce can help organizations improve their efficiency by automating tasks such as order processing and shipping.
- **Valuable Customer Data:** E-commerce transactions generate a wealth of data about customers' purchasing habits, which can be used to improve marketing and product development.
- **Stronger Brand Reputation:** A successful e-commerce presence can help organizations build a stronger brand reputation and attract new customers.

Benefits for Society

- **Job Creation:** The e-commerce industry creates jobs in a variety of areas, including technology, marketing, and logistics.
- **Economic Growth:** E-commerce contributes to economic growth by creating new businesses and expanding existing ones.
- **Reduced Environmental Impact:** E-commerce can help reduce the environmental impact of retail by eliminating the need for

transportation and packaging.

- **Increased Access to Goods and Services:** E-commerce provides people with access to goods and services that they may not otherwise have access to, such as those in rural areas or those with limited mobility.
 - **Improved Communication and Collaboration:** E-commerce platforms can facilitate communication and collaboration between businesses, customers, and government agencies.
-

6. Define Social Network

Social networks are online platforms that allow users to connect and share information with each other. They are typically based on the web and are accessible through a variety of devices, including computers, smartphones, and tablets.

Social networks are used for a variety of purposes, including:

- **Connecting with friends and family:**

Social networks are a great way to stay in touch with friends and family who live far away. They can be used to share photos, videos, and messages, and to keep up-to-date on each other's lives.

- **Networking with professionals:**

Social networks can be a valuable tool for networking with professionals in your field. They can be used to find new job opportunities, connect with potential clients, and learn about industry trends.

- **Promoting businesses:**

Social networks can be used to promote businesses and products. They can be used to create targeted ads, connect with potential customers, and build brand awareness.

- **Sharing news and information:**

Social networks are a great way to share news and information with the world. They can be used to break news stories, share links to articles, and participate in online discussions.

- **Finding entertainment:**

Social networks can be a source of entertainment. They can be used to watch videos, listen to music, and play games.

Social networks have become an integral part of many people's lives. They are a powerful tool for communication, connection, and information sharing.

Here are some of the most popular social networks:

- **Facebook:** Facebook is the most popular social network in the world, with over 2.91 billion monthly active users. It can be used to connect with friends and family, share photos and videos, and join groups.
- **Twitter:** Twitter is a microblogging platform that allows users to share short messages, or "tweets," of up to 280 characters. It is often used to share news, updates, and opinions.
- **Instagram:** Instagram is a photo and video sharing social network. Users can share photos and videos with their followers, and they can also add text captions and filters to their posts.
- **LinkedIn:** LinkedIn is a social network for professionals. It can be used to connect with colleagues, find new jobs, and research companies.
- **TikTok:** TikTok is a short-form video sharing social network. Users can create and share videos that are up to 60 seconds long.
- **Snapchat:** Snapchat is a photo and video messaging app that allows users to share photos and videos that disappear after 24 hours.

7. Describing the capabilities of social networking services

▼ Communication

- **Messaging:** Social networking services allow users to send and receive messages, both privately and publicly.
- **Commenting:** Users can comment on other users' posts, photos, and videos. This allows for a back-and-forth conversation and the sharing of ideas.

- **Sharing:** Users can share a variety of content, including photos, videos, links, and text. This allows them to share their experiences and interests with others.
- **Groups:** Social networking services allow users to join groups based on common interests or demographics. This allows them to connect with other people who share their passions.

▼ Community

- **Profile:** Social networking services allow users to create profiles that showcase their interests, experiences, and background. This allows other users to get to know them better.
- **Following:** Users can follow other users to see their updates in their newsfeed. This allows them to stay connected with people who inspire or interest them.
- **Newsfeed:** Social networking services provide a newsfeed that shows users updates from their friends and family. This allows them to stay up-to-date on what's happening in their lives.
- **Likes and Shares:** Users can like and share other users' posts. This shows their appreciation for the content and helps it to reach a wider audience.

▼ Entertainment

- **Games:** Social networking services often offer games that users can play with their friends. This is a fun way to connect and have some friendly competition.
- **Videos:** Social networking services allow users to watch and share videos. This is a great way to catch up on the latest news, watch funny clips, or learn something new.
- **Music:** Social networking services allow users to listen to and share music. This is a great way to discover new artists and enjoy your favorite tunes.
- **Live Streaming:** Social networking services are increasingly offering live streaming capabilities. This allows users to broadcast live video to their followers, sharing their experiences in real time.

▼ Business

- **Marketing:** Social networking services can be used to market products and services to a wide audience. Businesses can create ads, share promotional content, and engage with potential customers.
 - **Customer Service:** Social networking services can be used to provide customer service. Businesses can answer questions, resolve issues, and collect feedback from customers.
 - **Sales:** Social networking services can be used to generate sales leads. Businesses can identify potential customers, nurture relationships, and close deals.
 - **Recruitment:** Social networking services can be used to recruit new employees. Businesses can post job openings, connect with potential candidates, and review resumes.
-

8. Define social commerce

- **Social Commerce** is a term used to describe the use of social media platforms to buy and sell goods and services.
- It is a growing trend in e-commerce, and is being driven by the increasing popularity of social media, the rise of mobile devices, and the growing trust that consumers have in social media platforms.
- This can be done by creating product listings, sharing photos and videos, and running ads.
- Consumers can purchase products and services directly from the social media platform, without having to visit the business's website.

Here are some examples of social commerce:

- **Facebook Marketplace:** Facebook Marketplace is a platform where users can buy and sell goods and services from other users.
- **Instagram Shopping:** Instagram Shopping allows businesses to tag products in their posts and stories, making it easy for users to discover and purchase them.
- **Pinterest Buyable Pins:** Pinterest Buyable Pins are pins that allow users to purchase products directly from Pinterest.
- **TikTok Shopping:** TikTok Shopping allows businesses to create shoppable videos, making it easy for users to discover and purchase

products.

- **Snapchat Shopping:** Snapchat Shopping allows businesses to create shoppable Lenses, which are augmented reality filters that users can use to try on products.
-

9. List major technological barriers and limitations to EC

- security
- scalability
- performance
- mobile-optimization
- delivery (lumeir nepal had to deal with this [problem])
- customer-deals
- online and offline channels.

1. Security and Data Protection:

- E-commerce transactions involve sensitive customer information, such as credit card numbers and addresses.
- This makes e-commerce websites a prime target for cyberattacks.
- Businesses need to invest in robust security measures to protect customer data and prevent unauthorized access.

2. System Scalability and Performance:

- E-commerce websites need to be able to handle a high volume of traffic and transactions during peak periods, such as holiday shopping seasons.

3. Delivery and Fulfillment Logistics:

- Managing the delivery and fulfillment of orders can be a logistical challenge for e-commerce businesses.
- This involves coordinating with shipping carriers, tracking shipments, and handling returns.

4. Global Expansion and Regulatory Compliance:

- Expanding e-commerce operations into international markets requires compliance with different regulatory requirements, tax laws, and currency exchange rates.

5. Mobile Commerce Optimization:

- With the increasing popularity of smartphones and mobile devices, e-commerce websites need to be optimized for mobile browsing and shopping.

6. Personalized Customer Experience:

- E-commerce businesses need to leverage data analytics and personalization techniques to provide a tailored and relevant customer experience.

7. Omnichannel Integration:

- E-commerce businesses need to integrate their online and offline channels to provide a seamless customer experience across all touchpoints.

8. Emerging Technologies Adoption:

- E-commerce businesses need to stay ahead of the curve by adopting emerging technologies such as artificial intelligence, augmented reality, and blockchain to enhance customer experiences and optimize operations.

9. Data Ownership and Privacy Concerns:

- The collection and use of customer data raises concerns about data ownership, privacy, and ethical considerations.
 - Businesses need to establish transparent data practices and gain customer trust in their data handling.
-

10. Describe some of the benefits of studying e-commerce

1. high demand for e-commerce
2. web development
3. Market Sales
4. Supply chain management
5. CRM
6. High salary

7. Entrepreneur Opportunities
8. Future proof career

1. High Demand for E-commerce Professionals:

- The e-commerce industry is expanding rapidly, and there is a growing demand for skilled professionals to manage and operate online businesses.
- By studying e-commerce, you can gain the skills and knowledge needed to enter this exciting and dynamic field.

2. Diverse Career Opportunities: E-commerce offers a wide range of career opportunities in various areas, including:

- a. **Marketing and Sales:** Develop strategies to attract and retain customers through online channels.
- b. **Web Development and Design:** Create and maintain user-friendly and visually appealing e-commerce websites.
- c. **Supply Chain Management:** Manage the flow of goods and services from suppliers to consumers through e-commerce platforms.
- d. **Customer Relationship Management (CRM):** Build and maintain relationships with customers through personalized e-commerce experiences.

3. Competitive Salaries:

- E-commerce professionals are in high demand, and they typically command competitive salaries.
- According to Indeed, the average annual salary for an e-commerce manager is \$77,677, while the average annual salary for an e-commerce specialist is \$52,417.

4. Continuous Learning and Growth:

- There are always new things to learn and new skills to acquire.
- Studying e-commerce will prepare you for a career that is constantly changing and challenging.

5. Entrepreneurship Opportunities:

- E-commerce provides a platform for individuals to start their own online businesses.

- By studying e-commerce, you can gain the knowledge and skills needed to launch and manage your own successful e-commerce venture.

6. Future-Proof Career:

- E-commerce is an essential part of the modern economy, and it is only going to become more important in the years to come.
- By studying e-commerce, you can secure a future-proof career with great job prospects.

11. Describe the key elements of L-commerce infrastructure

L-commerce, or location-based commerce, is an emerging form of e-commerce that utilizes mobile devices and location-based technologies to deliver personalized and context-aware shopping experiences to consumers.

- Khalti
- tootle

The key elements of L-commerce infrastructure include:

1. Mobile Devices and Location-Based Technologies:

- Smartphones and tablets are the primary devices used for L-commerce, enabling consumers to access location-based services and engage in mobile shopping.
- Location-based technologies, such as GPS, Wi-Fi, and cellular networks, provide real-time location data, allowing businesses to tailor offerings and promotions based on a customer's location.

2. Mobile Applications and Websites:

- Mobile applications designed for L-commerce provide targeted product recommendations, store proximity alerts, and location-based deals.
- Mobile-optimized websites with responsive designs ensure a seamless user experience across various screen sizes and devices.

3. Augmented Reality (AR) and Virtual Reality (VR):

- AR overlays digital content onto the real world, enhancing product visualization and enabling customers to virtually try on products or place them in their homes.
- VR creates immersive virtual environments, allowing customers to explore virtual stores or experience products in a simulated environment.

4. Beacon Technology:

- Beacons emit Bluetooth signals that can be detected by nearby smartphones, enabling businesses to send targeted messages and promotions to customers based on their proximity to a store or product.

5. Partnerships with Location-Based Service Providers:

- Collaborations with location-based service providers can expand the reach of L-commerce initiatives and provide access to valuable location data and insights.

12. What is GPS? How does it work?

- The Global Positioning System (GPS) is a satellite-based navigation system that provides location and time information.
- It is used for a variety of purposes, including navigation, surveying, and tracking.

How GPS works:

1. GPS satellites broadcast signals:

Each GPS satellite continuously broadcasts (transmit) a signal containing its precise location and the current time.

2. GPS receiver receives signals:

A GPS receiver on the ground receives signals from multiple satellites simultaneously.

3. Distance calculation:

The GPS receiver measures the time it takes for each signal to arrive. Using this information, the receiver can calculate the distance to each satellite.

4. Position determination:

By knowing the distance to at least four satellites, the GPS

receiver can use trilateration to calculate its position in three-dimensional space (latitude, longitude, and altitude).

5. Time synchronization:

The GPS receiver can also synchronize its clock to the precise time broadcast by the satellites. This allows it to provide accurate timestamps for location data.

GPS has revolutionized navigation and is used in a wide variety of applications, including:

- **In-vehicle navigation:** GPS is used in cars, trucks, and other vehicles to provide turn-by-turn directions.
- **Aviation:** GPS is used in aircraft to provide navigation and situational awareness.
- **Hiking and outdoor activities:** GPS is used in handheld devices to help hikers and campers find their way.
- **Transportation:** GPS is used to track shipments and optimize delivery routes.
- **Emergency response:** GPS is used by emergency responders to locate people and vehicles in distress.
- **Precision agriculture:** GPS is used in precision agriculture to optimize crop management and maximize yields.
- **Surveying and mapping:** GPS is used to accurately measure distances and locations for surveying and mapping purposes.

13. What are the some of the basic questions addressed by location based services?

Location-based services (LBS) are a broad category of services that use mobile devices and location-based technologies to provide information and services to users based on their current location.

LBS address a wide range of questions, including:

1. Where am I?

The most fundamental question addressed by LBS is determining a user's current location. This information can be used for navigation, providing directions, and finding nearby points of interest.

2. Who is nearby?

LBS can enable users to connect with friends and family who are also nearby. This can facilitate social interactions, meetups, and shared experiences.

3. What is around me?

LBS can provide information about nearby businesses, restaurants, attractions, and events. This information can help users discover new places, make informed decisions, and enhance their local experiences.

4. What is happening around me?

LBS can provide information about local events, news, and real-time traffic conditions. This information can keep users informed and aware of what's happening in their surroundings.

5. How can I get there?

LBS can provide turn-by-turn directions for driving, walking, cycling, or using public transportation. This information can help users navigate efficiently and avoid traffic congestion.

6. What is relevant to me?

LBS can personalize information and services based on a user's preferences, interests, and past behavior. This can provide a more tailored and relevant experience for each user.

7. How can I find lost items?

LBS can assist in locating lost items, such as smartphones, keys, or pets, using proximity detection or augmented reality (AR) technology.

14. Define geographical information system. How do they relate to LBS?

- Geographical information (GI) is data that describe particular location on Earth.

It can include information about the physical environment, such as landforms (mountains, hills), water bodies (lake, river), and vegetation (plants), as well as information about human activity, such as roads, buildings, and population density.

Geographical information is used in a wide variety of applications, including:

- **Mapping:** GI is used to create maps of all kinds, from simple road maps to complex topographic maps.

- **Navigation:** GI is used in GPS devices and other navigation systems to help people find their way.
- **Environmental planning:** GI is used to assess the environmental impact of development projects and to plan for sustainable land use.
- **Emergency response:** GI is used to coordinate emergency response efforts and to provide information to first responders.
- **Business intelligence:** GI is used by businesses to analyze customer data, identify market trends, and make informed decisions about location-based strategies.

LBS (Location-based services) is a subset of GI that uses location data to provide information and services to users based on their current location. LBS can be used for a variety of purposes, including:

Ans based on where am I , what is happening around me, who is nearby.

- **Navigation:** LBS can provide turn-by-turn directions for driving, walking, cycling, or using public transportation.
- **Local search:** LBS can be used to find businesses, restaurants, and other points of interest near a user's location.
- **Social networking:** LBS can be used to connect with friends and family who are also nearby.
- **Weather and traffic updates:** LBS can be used to provide real-time weather and traffic information for a user's location.
- **Emergency alerts:** LBS can be used to send emergency alerts to users in affected areas.

15. List the services enabled by Location based services

Location-based services (LBS) utilize mobile devices and location-based technologies to deliver personalized and context-aware services to consumers based on their current location. LBS has revolutionized various aspects of our lives, enabling a wide array of services that enhance convenience, accessibility, and efficiency. Here's a comprehensive list of services enabled by LBS:

- Google-map

- Foodmandu
- Pathao
- In-drive
- Tootle

1. **Navigation and Mapping:**

LBS is fundamental to navigation apps like Google Maps, Waze, and Apple Maps, providing turn-by-turn directions for driving, walking, cycling, and public transportation. It also powers mapping services that offer real-time traffic updates, street-level imagery, and route planning tools.

2. **Local Search and Discovery:**

LBS enables users to discover nearby businesses, restaurants, attractions, and events through search apps, recommendation platforms, and social media. It helps users find relevant points of interest, explore their surroundings, and make informed decisions about their activities.

3. **Location-Based Advertising and Marketing:**

LBS allows businesses to target advertising and promotions to users based on their proximity, preferences, and past behavior. This personalized approach enhances marketing effectiveness and offers relevant deals to users at the right time and place.

4. **Weather and Traffic Updates:**

LBS provides real-time weather information and traffic conditions tailored to a user's location. This empowers users to make informed decisions about their travel plans, avoid congestion, and prepare for adverse weather conditions.

5. **Social Networking and Location Sharing:**

LBS enables social networking apps like Facebook, Twitter, and Instagram to incorporate location-based features. Users can share their whereabouts, check-in to places, and connect with friends nearby, fostering social connections and shared experiences.

6. **Food Delivery and On-Demand Services:**

LBS is essential for food delivery apps like Uber Eats, DoorDash, and Grubhub, facilitating the process of ordering food, tracking

delivery status, and receiving real-time updates based on the user's location.

7. **Ride-Hailing and Transportation Services:**

LBS powers ride-hailing apps like Uber and Lyft, enabling users to request rides, track their location, and connect with nearby drivers. It also facilitates ride-sharing services and carpooling options, promoting efficient transportation solutions.

16. Describe social location based marketing (SLBM)

Social location-based marketing (SLBM) is a marketing strategy that combines the power of

- social media
- location-based technologies

to target consumers with personalized and relevant messaging based on their

- social media behavior
- current location

1. **Social Media Integration:** Social media platforms, such as Facebook, Twitter, and Instagram, provide a rich source of data about users' interests, demographics, and social connections. SLBM strategies utilize this data to segment and target audiences with tailored messages.
2. **Location-Based Technologies:** Location-based technologies, such as GPS and geofencing, enable businesses to identify and target consumers based on their physical whereabouts. This allows for the delivery of location-specific promotions, product recommendations, and event notifications.
3. **Personalized and Contextual Marketing:** SLBM enables businesses to deliver highly personalized marketing messages that are relevant to the user's current location, social media behavior, and interests. This enhances the likelihood of engagement and conversion.

4. **Real-time Engagement:** SLBM allows businesses to engage with consumers in real-time as they move through the physical world. This facilitates timely and relevant interactions that can drive immediate action.
-

17. List major applications of LBC

▼ Retail and E-commerce:

- **Location-based promotions:** Businesses can send targeted promotions and offers to consumers based on their proximity to stores, restaurants, or events.
- **Location-based product recommendations:** LBC can recommend products or services that are relevant to the user's current location, interests, and past purchases.
- **In-store navigation and assistance:** LBC can help customers navigate stores and find products using their mobile devices.
- **Omnichannel integration:** LBC can bridge the gap between online and offline shopping experiences, allowing customers to seamlessly switch between channels.

▼ Food Delivery and On-demand Services:

- **Real-time order tracking and delivery ETA:** LBC provides real-time tracking of food deliveries and estimated arrival times.
- **Location-based delivery fees:** Delivery fees can be adjusted based on the customer's location and distance from the restaurant or store.
- **Proximity-based driver matching:** LBC can connect customers with delivery drivers who are closest to their location, reducing delivery times.

▼ Ride-hailing and Transportation Services:

- **Real-time ride requests and driver tracking:** LBC facilitates real-time ride requests and provides real-time tracking of the driver's location.
- **Location-based fare estimation:** LBC can provide estimated fares based on the customer's location, destination, and current traffic conditions.

- **Surge pricing based on demand:** LBC can dynamically adjust ride prices based on real-time demand in specific locations.

▼ **Tourism and Travel:**

- **Location-based recommendations for attractions and events:** LBC can recommend local attractions, events, and activities based on the user's location and interests.
- **Augmented reality experiences for sightseeing:** LBC can overlay digital content onto the real world, providing immersive sightseeing experiences.
- **Location-based navigation and directions:** LBC can help tourists navigate cities and find their way to attractions using their mobile devices.

▼ **Social Networking and Local Connections:**

- **Location-based check-ins and social sharing:** LBC enables users to check-in to locations and share their whereabouts with friends and followers.
- **Location-based social discovery:** LBC can help users discover friends, events, and businesses in their immediate vicinity.
- **Hyperlocal social media groups and communities:** LBC can facilitate the creation of hyperlocal social media groups and communities based on shared interests and locations.

18. List the major barriers to LBC

Application's defects

- **Privacy worries:**
People are concerned about their location data being collected and used without their consent or knowledge.
- **Being honest and transparent:**
Companies need to be upfront about how they collect and use location data.
- **Technology that isn't perfect:**

Location data can be inaccurate, especially indoors or in crowded areas.

- **Managing all that data:**

LBC generates a lot of data, which needs to be stored, analyzed, and used in a way that protects people's privacy.

- **Hard to connect with other systems:** (e-commerce retails)

LBC doesn't always work well with existing e-commerce and customer management systems.

- **Getting things delivered:** (food delivery)

LBC needs a reliable way to get goods to customers quickly and easily.

19. Define M-Commerce

Mobile commerce (m-commerce) refers to the buying and selling of goods and services through mobile devices, such as smartphones and tablets.

Key characteristics

- **Mobility:**

M-commerce enables transactions to take place anytime, anywhere, and on the go, providing customers with greater convenience and flexibility.

- **Personalization:**

M-commerce can leverage mobile device capabilities, such as location data and user preferences, to provide personalized shopping experiences and targeted promotions.

- **Real-time engagement:**

M-commerce facilitates real-time interactions between businesses and customers, enabling instant communication, order tracking, and customer support.

Benefits for Businesses: (order)

- **Expanded reach:** M-commerce expands a business's reach beyond its physical location, opening up new markets and customer segments.

- **Enhanced customer engagement:** M-commerce facilitates real-time interactions with customers, enabling businesses to provide personalized service, address concerns, and build stronger relationships.

- **Increased sales opportunities:** M-commerce provides additional sales channels, allowing businesses to capture impulse purchases and reach

customers who may not visit physical stores.

- **Improved data collection:** M-commerce generates valuable data about customer behavior, preferences, and location, which can be used to optimize marketing strategies and improve customer experiences.

Benefits for Consumers:

- **Convenience:** M-commerce allows consumers to shop from anywhere, at any time, using their mobile devices.
 - **Personalized recommendations:** M-commerce can provide personalized product recommendations based on a user's past purchases, browsing history, and location.
 - **Real-time price comparisons:** M-commerce enables consumers to easily compare prices across different retailers and find the best deals.
 - **Instant order tracking:** M-commerce allows consumers to track their orders in real-time, providing visibility into the delivery process.
-

20. Briefly describe the five value added attributes of m-commerce

1. Ubiquity:

M-commerce allows users to access information and make transactions anytime, anywhere, using their mobile devices.

2. Convenience:

- M-commerce facilitates easy and effortless shopping experiences.
- Consumers can browse products, make purchases, track orders, and communicate with businesses seamlessly from their mobile devices.

3. Personalization:

- M-commerce leverages mobile device capabilities to deliver personalized shopping experiences.
- Businesses can utilize location data, browsing history, and past purchases to tailor product recommendations, promotions, and offers to individual consumers.

4. Real-time engagement:

- M-commerce enables real-time interactions between businesses and customers.
- Businesses can provide instant customer support, address concerns, and track customer behavior to optimize their strategies.

5. Omnichannel integration:

- M-commerce seamlessly integrates with other sales channels, such as brick-and-mortar stores and e-commerce websites.
- This integration creates a unified customer experience, allowing consumers to move between channels effortlessly.

21. List and briefly describe eight major drivers of M-commerce

here is a list of eight major drivers of m-commerce and a brief description of each:

1. Increasing smartphone penetration:

The widespread adoption of smartphones is a primary driver of commerce growth. With more people owning smartphones, the potential customer base for m-commerce has expanded significantly.

2. Advancements in mobile technologies:

Technological advancements in mobile devices, such as faster processors, larger screens, and improved network connectivity, have enhanced the m-commerce experience, making it more user-friendly and responsive.

3. Evolving consumer behavior:

Consumer preferences are shifting towards convenience, immediacy, and personalized experiences, which m-commerce effectively caters to. Consumers increasingly prefer to shop and make transactions using their mobile devices, seeking a seamless and convenient shopping experience.

4. Rise of social media and mobile apps:

Social media platforms and mobile apps have become integral parts of consumer behavior, influencing purchasing decisions and driving traffic to m-commerce platforms. Social shopping features and in-app purchases have further fueled the growth of m-commerce.

1. convenience
2. Mobile wallets
3. social media
4. Location based services
5. AR
6. AI
7. Increasing smart phone penetration

5. Improved mobile payment security:

Advancements in mobile payment technologies, such as tokenization and biometric authentication, have addressed security concerns and increased consumer trust in m-commerce transactions.

6. Growing popularity of omnichannel retail:

Omnichannel strategies that integrate physical stores, online platforms, and mobile apps have become essential for modern retailers. M-commerce plays a crucial role in omnichannel strategies, providing a unified customer experience across all channels.

7. Expansion of mobile commerce infrastructure:

The development of m-commerce infrastructure, including reliable mobile networks, secure payment gateways, and robust logistics systems, has facilitated the growth of m-commerce and supported its expansion into new markets.

8. Emerging technologies and innovations:

The emergence of technologies like augmented reality (AR), virtual reality (VR), and artificial intelligence (AI) is expected to further transform m-commerce, creating immersive and interactive shopping experiences that enhance customer engagement and personalization.

22. Describe the frameworks of m-commerce applications

M-commerce applications are typically built upon a layered framework that encompasses various components to facilitate seamless mobile transactions and provide a user-friendly shopping experience. The framework can be broadly divided into three main layers:

1. Presentation Layer:

- The presentation layer serves as the user interface (UI) of the m-commerce application
- Responsible for displaying product information, managing shopping carts, and handling user interactions.
- It typically utilizes web technologies like HTML, CSS, and JavaScript to create an engaging and responsive UI that adapts to different mobile device screens.

2. **Application Layer:**

- The application layer is the core of the m-commerce application
- Responsible for handling business logic, processing transactions, and communicating with backend systems.
- It encompasses functionalities such as product catalog management, shopping cart management, order processing, payment gateway integration, and user authentication.

3. **Data Access Layer:**

- The data access layer handles data storage and retrieval, providing the application layer with access to product information, customer data, and order details.
- It typically utilizes databases like MySQL or PostgreSQL to store and manage the application's data securely and efficiently.

Within these three layers, various components work together to enable a seamless m-commerce experience: (1 - 6) *order read as step by step.*

1. **Product Catalog Management:** This component manages the product catalog, including product descriptions, images, pricing, and inventory levels. It ensures that accurate and up-to-date product information is available to customers.
2. **Shopping Cart Management:** This component manages the shopping cart, allowing customers to add and remove items, view their cart contents, and proceed to checkout. It maintains the state of the shopping cart across different devices and sessions.
3. **Order Processing:** This component handles the order processing workflow, including order confirmation, payment processing, order fulfillment, and shipping notifications. It ensures that orders are processed efficiently and accurately.
4. **Payment Gateway Integration:** This component integrates the m-commerce application with a secure payment gateway to facilitate secure online transactions. It handles credit card processing, fraud prevention, and payment confirmations.
5. **User Authentication and Authorization:** This component manages user authentication and authorization, verifying user identities and granting access to appropriate application features. It ensures that

user data is protected and that users can only access authorized functionalities.

6. **Push Notifications:** This component enables the delivery of push notifications to users, informing them about order status updates, promotions, and other relevant events. It enhances user engagement and keeps them informed.
7. **Search and Recommendations:** This component implements search functionality and provides personalized product recommendations based on user preferences, browsing history, and purchase patterns. It improves the user experience and helps customers discover relevant products.
8. **Analytics and Reporting:** This component collects and analyzes m-commerce data, providing insights into customer behavior, product popularity, and marketing effectiveness. It helps businesses make informed decisions and optimize their strategies.

23. What are the major categories of m-commerce application

Retail Entertainment Education Food Finance Trasport Ticket

M-commerce applications encompass a wide range of categories, each catering to specific business needs and consumer behaviors. Here are some of the major categories of m-commerce applications:

1. **Retail M-commerce:** Retail m-commerce applications focus on selling physical goods directly to consumers. This includes e-commerce platforms, mobile apps, and in-app purchase options that allow customers to browse products, add items to their carts, and complete transactions using their mobile devices. Examples include Amazon, Alibaba, and Flipkart.
2. **Travel M-commerce:** Travel m-commerce applications facilitate the booking and management of travel arrangements, including flights, hotels, car rentals, and tours. These applications allow users to compare prices, view availability, make reservations, and manage their itineraries on their mobile devices. Examples include Expedia, Kayak, and Booking.com.
3. **Food Delivery M-commerce:** Food delivery m-commerce applications enable users to order food from restaurants and have it delivered to their doorstep. These applications typically feature menus, order

customization options, real-time order tracking, and payment integration. Examples include Uber Eats, DoorDash, and Grubhub.

4. **On-demand Services M-commerce:** On-demand services m-commerce applications connect consumers with service providers for various tasks, such as transportation, home services, beauty services, and repairs. These applications allow users to browse provider profiles, schedule appointments, and make payments through their mobile devices. Examples include Uber, TaskRabbit, and Thumbtack.
 5. **Ticketing and Events M-commerce:** Ticketing and events m-commerce applications facilitate the purchase and management of tickets for concerts, sporting events, theater performances, and other events. These applications allow users to browse events, purchase tickets, view seating charts, and manage their tickets electronically. Examples include Ticketmaster, StubHub, and Eventbrite.
 6. **Financial M-commerce:** Financial m-commerce applications provide mobile access to financial services, such as banking, money transfers, and investment management. These applications allow users to check account balances, make transactions, transfer funds, and manage their investments on their mobile devices. Examples include Zelle, PayPal, and Venmo.
 7. **Health and Wellness M-commerce:** Health and wellness m-commerce applications offer access to healthcare services, fitness tracking, and health management tools. These applications enable users to schedule appointments, consult with healthcare providers, track fitness activities, and manage their health data. Examples include Zocdoc, Calm, and MyFitnessPal.
 8. **Education M-commerce:** Education m-commerce applications provide access to educational resources, online courses, and learning tools. These applications allow users to enroll in courses, access learning materials, interact with instructors, and complete assignments on their mobile devices. Examples include Coursera, Udemy, and Khan Academy.
-

24. Describe the landscape of m-commerce

The landscape of m-commerce is a dynamic and rapidly evolving space, driven by technological advancements, changing consumer behavior, and

the emergence of new business models. Key characteristics of the m-commerce landscape include:

1. **Ubiquity and Accessibility:** M-commerce has become ubiquitous, with mobile devices enabling users to shop anytime, anywhere. This accessibility has expanded the reach of businesses and provided consumers with greater convenience.
2. **Personalization and Customization:** M-commerce platforms leverage data and analytics to personalize shopping experiences, tailoring product recommendations, promotions, and offers to individual users. This personalized approach enhances customer engagement and conversion rates.
3. **Real-time Engagement and Interaction:** M-commerce facilitates real-time interactions between businesses and customers. Push notifications, live chat features, and in-app messaging enable immediate communication, order tracking, and customer support.
4. **Omnichannel Integration:** M-commerce seamlessly integrates with other sales channels, such as brick-and-mortar stores and e-commerce websites. This omnichannel approach creates a unified customer experience, allowing consumers to switch between channels effortlessly.
5. **Emerging Technologies and Innovations:** The introduction of technologies like augmented reality (AR), virtual reality (VR), and artificial intelligence (AI) is transforming m-commerce. AR overlays digital content onto the real world, enabling immersive product experiences, while VR creates virtual environments for shopping. AI powers personalized recommendations, chatbots for customer support, and automated decision-making.
6. **Social Commerce and Influencer Marketing:** Social media platforms play a significant role in m-commerce, with social shopping features, influencer marketing campaigns, and in-app purchase options driving sales. Social media provides a direct connection between brands and consumers, fostering engagement and brand awareness.
7. **Mobile Payment Security and Convenience:** Mobile payment technologies have enhanced the security and convenience of m-commerce transactions. Tokenization, biometric authentication, and secure payment gateways protect user data and provide a seamless checkout experience.

8. **Cross-border E-commerce and Global Reach:** M-commerce has enabled businesses to expand their reach beyond geographical boundaries, reaching a global audience and catering to international markets. Cross-border e-commerce platforms facilitate international transactions, currency conversions, and localized shopping experiences.
 9. **Mobile-first Marketing Strategies:** Businesses are adopting mobile-first marketing strategies, prioritizing mobile channels for reaching and engaging customers. This includes mobile-optimized websites, mobile app development, and targeted mobile advertising campaigns.
 10. **Focus on Customer Experience and User Interface:** M-commerce platforms prioritize user experience and interface design, ensuring a seamless, intuitive, and enjoyable shopping experience for mobile users. Fast loading speeds, responsive design, and easy navigation are crucial for user engagement and conversion.
-

25. What are the major benefits of M-commerce

M-commerce offers a wide range of benefits for both businesses and consumers. Here are some of the major advantages:

Benefits for Businesses: (order)

- **Expanded reach:** M-commerce expands a business's reach beyond its physical location, opening up new markets and customer segments.
- **Enhanced customer engagement:** M-commerce facilitates real-time interactions with customers, enabling businesses to provide personalized service, address concerns, and build stronger relationships.
- **Increased sales opportunities:** M-commerce provides additional sales channels, allowing businesses to capture impulse purchases and reach customers who may not visit physical stores.
- **Improved data collection:** M-commerce generates valuable data about customer behavior, preferences, and location, which can be used to optimize marketing strategies and improve customer experiences.

Benefits for Consumers:

- **Convenience:** M-commerce allows consumers to shop from anywhere, at any time, using their mobile devices.
 - **Personalized recommendations:** M-commerce can provide personalized product recommendations based on a user's past purchases, browsing history, and location.
 - **Real-time price comparisons:** M-commerce enables consumers to easily compare prices across different retailers and find the best deals.
 - **Instant order tracking:** M-commerce allows consumers to track their orders in real-time, providing visibility into the delivery process.
-

26. Describe the major online enterprise application

Online enterprise applications (OEAs) are software applications that are designed to help businesses operate more efficiently and effectively by automating and streamlining business processes. OEAs are typically web-based and can be accessed from anywhere with an internet connection. They are used by businesses of all sizes, from small startups to large multinational corporations.

Here are some of the major categories of OEAs:

1. Customer Relationship Management (CRM)

CRM systems are used to manage all interactions between a business and its customers. They help businesses track customer data, identify sales opportunities, and provide customer support. Examples of popular CRM systems include Salesforce, Microsoft Dynamics 365, and Oracle Siebel CRM.

2. Enterprise Resource Planning (ERP)

ERP systems are used to manage all of the core business processes of a company, including supply chain management, financial management, and human resource management. They help businesses integrate their data and processes across multiple departments. Examples of popular ERP systems include SAP ERP, Oracle ERP Cloud, and Microsoft Dynamics AX.

3. Supply Chain Management (SCM)

SCM systems are used to manage the flow of goods and information from suppliers to customers. They help businesses optimize their supply chains, reduce costs, and improve customer service. Examples of popular SCM systems include JDA Supply Chain Management, Oracle Supply Chain Management Cloud, and SAP Supply Chain Management.

4. Business Intelligence (BI)

BI systems are used to analyze data and extract insights to improve business decisions. They help businesses understand their customers, their products, and their markets. Examples of popular BI systems include Tableau, Power BI, and Qlik Sense.

5. Content Management System (CMS)

CMS systems are used to manage the creation, publication, and deletion of content on a website. They help businesses easily update their websites without having to know HTML or CSS. Examples of popular CMS systems include WordPress, Drupal, and Joomla.

6. Project Management (PM)

PM systems are used to plan, execute, and track projects. They help businesses manage project tasks, deadlines, and budgets. Examples of popular PM systems include Asana, Trello, and Basecamp.

These are just a few examples of the many different types of OEAs that are available. The specific OEAs that a business uses will depend on its industry, size, and needs.
