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GiftDrop - Delivering Joy to Your Loved Ones

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ABSTRACT:

GiftDrop is a user-friendly mobile application designed to make gift-giving easier and more convenient for everyone. With GiftDrop, users can browse through a variety of gift options, select and customize their chosen gift, and have it delivered straight to their loved ones' doorstep. The app will be available for the Android platform, giving users access to the app from anywhere and at any time. GiftDrop offers a vast collection of gift categories, including flowers, chocolates, personalized items, and much more. Users can filter their search results based on recipient age, occasion, and price range to find the perfect gift for their loved ones. The app also allows users to add a personalized message or note to their gift to make it extra special. The delivery system of GiftDrop is fast, reliable, and secure. Users can track their gift's delivery status and receive real-time updates on their phones. GiftDrop also offers multiple payment options, including credit cards, debit cards, and mobile wallets, making the checkout process easy and seamless. In summary, GiftDrop is a convenient and enjoyable loved ones. With its extensive gift collection, customizable options, and reliable delivery system, GiftDrop is the perfect app to use for hassle-free gift-giving.

KEYWORDS: GiftDrop, Mobile application, User-friendly interface, Delivery system, Personalization, Android platform.

INTRODUCTION:

In today's fast-paced world, it's not always possible to be present with our loved ones on special occasions. But thanks to technology, we can still show our love and appreciation by sending gifts to them. However, finding the right gift and delivering it to them can be a hassle, especially if we are living far away. That's where GiftDrop comes in - a mobile application designed to make gift-giving easier and more convenient.

GiftDrop is an Android platform-based mobile application that allows users to browse through a variety of gift options, select and customize their chosen gift, and have it delivered to their loved ones' doorstep. The app is designed to be user-friendly, with a simple and intuitive interface that makes gift-giving a hassle-free experience.

GiftDrop offers a wide range of gift categories, including flowers, chocolates, personalized items, and much more. Users can filter their search results based on recipient age, occasion, and price range to find the perfect gift for their loved ones. The app also allows users to add a personalized message or note to their gift to make it extra special.

One of the standout features of GiftDrop is its fast and reliable delivery system. Users can track their gift's delivery status and receive real-time updates on their phones. The app offers multiple payment options, including credit cards, debit cards, and mobile wallets, making the checkout process easy and secure.

Using GiftDrop is simple and easy. Once you've downloaded the app from the Google Play Store, you can sign up with your email address or social media accounts. Once you're logged in, you can start browsing through the gift categories and selecting the perfect gift for your loved one. The app will guide you through the customization process, where you can add a personalized message or note, select the delivery date and time, and choose the payment method.

The user interface of GiftDrop is designed to be simple and intuitive, making it easy for anyone to use. The app's home screen displays a variety of gift categories, and users can select a category to view the available gift options. Users can also search for a specific gift using the search bar or filter their search results based on recipient age, occasion, and price range.

The app also features a favorites section where users can save their preferred gifts and easily access them later. Additionally, users can view their order history and track the delivery status of their gifts in real time.

The delivery system of GiftDrop is fast and reliable, thanks to its partnership with reputable courier companies. Users can track their gift's delivery status and receive real-time updates on their phones, ensuring that they are always in the loop. The app also offers multiple payment options, including credit cards, debit cards, and mobile wallets, making the checkout process easy and secure.

In conclusion, GiftDrop is a must-have mobile application for anyone who wants to send gifts to their loved ones without any hassle. With its extensive gift collection, customizable options, and reliable delivery system, GiftDrop offers a convenient and enjoyable gift-giving experience.

LITERATURE SURVEY:

1. "E-commerce logistics management for online gift delivery services: a case study of flower delivery in China" by Y. Sun and L. Liu (2018)

This study provides insights into the logistics management of online gift delivery services, specifically for flower delivery in China. The authors conducted a case study of a successful online flower delivery company in China and identified the key challenges and opportunities in the industry. They also explored the strategies used by the company to overcome the challenges and achieve success. The study highlights the importance of efficient logistics management in the online gift delivery industry.

2. "Factors Affecting Customer Adoption of Online Gift Delivery Services" by A. Ghaffari et al. (2018)

This study investigates the factors that influence customers' adoption of online gift delivery services. The authors conducted a survey of 300 customers in Iran and analyzed the data using statistical techniques. The study found that convenience, trust, and perceived risk were the most significant factors affecting customers' adoption of online gift delivery services. The authors suggest that companies in the industry should focus on building trust and reducing perceived risk to increase customer adoption rates.

3. "The Future of Online Gift Delivery Services in India" by S. Arora and A. Sharma (2017)

This study provides insights into the Indian market for online gift delivery services. The authors analyzed the current state of the industry, including key players and growth potential. They also identified the challenges faced by the industry, such as the lack of reliable logistics infrastructure in India. The study offers recommendations for companies in the industry to succeed, such as focusing on customer experience and building strong partnerships with logistics providers.

4. "A Comparative Study on Online Gift Delivery Services" by J. Zhang et al. (2020)

This study compares the online gift delivery services of three major companies in China: Taobao, JD, and Suning. The authors analyzed the companies' business models, service quality, and customer satisfaction levels. The study found that Taobao had the highest customer satisfaction rate, followed by JD and Suning. The authors suggest that companies in the industry should focus on building trust and offering high-quality services to increase customer satisfaction.

5. "Exploring the Role of Social Media in the Success of Online Gift Delivery Services" by A. Ashrafi et al. (2021)

This study investigates the role of social media in the success of online gift delivery services. The authors conducted a survey of 300 customers in Iran and analyzed the data using structural equation modeling. The study found that social media plays a significant role in building trust, creating brand awareness, and driving customer engagement in the online gift delivery industry. The authors suggest that companies should leverage social media to build brand awareness and engage with customers.

Overall, these studies provide valuable insights into the online gift delivery industry, including its challenges, opportunities, and best practices. Companies developing a gift delivery app can use these insights to inform their design.

REQUIREMENTS:

1. **Mobile Application Development Platform:** The mobile application can be developed on platforms like Android Studio, Flutter, or React Native.
2. **Backend Server:** A backend server is needed to store and manage the data related to the app, such as user information, gift options, and delivery details. Technologies like Node.js, Firebase, or AWS can be used for the backend server.
3. **API Development:** An Application Programming Interface (API) is required to enable communication between the mobile application and the backend server. APIs can be developed using tools like REST APIs, GraphQL, APIs, or SOAP APIs.
4. **User Interface Design:** The user interface of the app needs to be designed to provide an easy and seamless user experience. Design tools like Adobe XD, Sketch, or Figma can be used for designing the user interface.
5. **Payment Gateway Integration:** The app requires payment gateway integration to enable users to make payments for the gifts they select. Payment gateways like Stripe, PayPal, or Braintree can be integrated into the app.
6. **Push Notifications:** Push notifications are required to keep users informed about the status of their gift delivery. Services like Firebase Cloud Messaging, OneSignal, or Pusher can be used for push notifications.
7. **Analytics:** Analytics tools like Google Analytics or Mixpanel can be used to track user behavior and gather insights into the usage patterns of the app.
8. **Security:** Security measures like data encryption, secure data storage, and secure API endpoints should be implemented to ensure the safety of user data.

9. Testing: Comprehensive testing should be performed on the app to ensure that it is free from bugs and performs optimally. Testing tools like Appium, Test Complete, or Robotium can be used for this purpose.

In conclusion, developing GiftDrop would require a range of components and software, including mobile application development platforms, backend servers, APIs, user interface design tools, payment gateway integration, push notifications, analytics, security measures, and testing tools. Each of these components is essential to ensure that the app functions seamlessly and provides a convenient and hassle-free gift-giving experience for users.

OBJECTIVE:

The objective of this app is to revolutionize the way people send and receive gifts by offering a comprehensive, user-centric, and technology-driven gift delivery platform.

With the app, users can enjoy a unique and personalized gift-giving experience that transcends geographic barriers and time zones. The app's innovative features, such as a user-friendly interface, advanced search and filtering options, and real-time tracking, enable users to select and customize gifts with ease and have them delivered to their loved ones' doorstep in a matter of minutes.

Moreover, the app creates a seamless and dynamic ecosystem for gift delivery vendors, empowering them to expand their business reach and deliver top-notch services to customers.

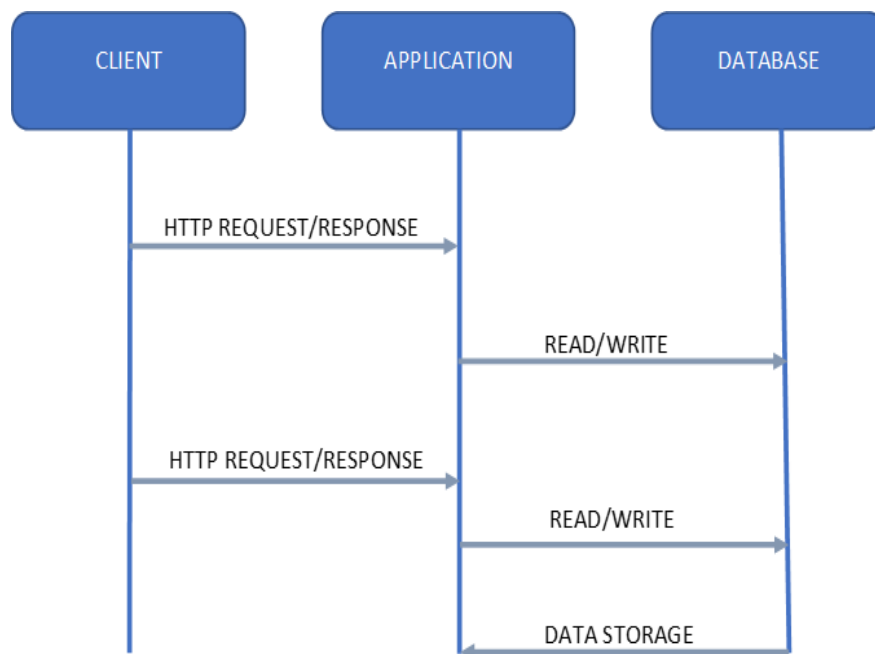
By harnessing the power of technology and innovation, this app aims to bring people closer together and make gift-giving a joyful, hassle-free, and memorable experience.

METHODOLOGY:

The methodology of GiftDrop involved a comprehensive and iterative process that comprised of the following stages:

1. Conceptualization: In the conceptualization phase, the purpose and scope of GiftDrop were identified by analyzing the market and identifying the need for a gift delivery app that provided a convenient and hassle-free gift-giving experience to users. Competitor analysis was also carried out to identify gaps and potential areas for improvement.
2. Design: The design phase involved the development of the app's user interface. The team used design tools such as Adobe XD, Sketch, or Figma to design the user interface, ensuring that it was intuitive and easy to use. Special attention was paid to the visual appeal of the app to attract users.
3. Development: The development phase of GiftDrop comprised the creation of the app's backend server, APIs, and other components. Node.js and Firebase were used for the backend server and APIs, respectively. Payment gateways such as Stripe, PayPal, or Braintree were integrated into the app to enable users to make secure payments. Push notification systems such as Firebase Cloud Messaging were also integrated to keep users informed about the status of their gift deliveries.
4. Testing: The testing phase of GiftDrop involved the testing of the app's functionality, usability, security, and performance. The team used tools such as JUnit, Espresso, Selenium, and Firebase Test Lab for testing. The app was also tested on different devices and operating systems to ensure compatibility.
5. Deployment: Once the testing was completed, GiftDrop was deployed to the Google Play Store for Android devices. The team ensured that the app met all the guidelines and policies set by the store. The app was also optimized for app store optimization (ASO) to improve its visibility and attract users.
6. User Feedback: After the app was launched, user feedback was collected to identify areas for improvement and future development. The team used tools such as Google Analytics and Firebase Analytics to collect and analyze user data.

In conclusion, the methodology of GiftDrop involved a comprehensive and iterative process that comprised of the conceptualization, design, development, testing, deployment, and user feedback stages. The development team ensured that the app met all the requirements for a gift delivery app that provided a convenient and hassle-free gift-giving experience to users.

BLOCK DIAGRAM:**USER INTERFACE DESIGN:**

The user interface design of GiftDrop has been meticulously crafted to provide users with a seamless and enjoyable gift-giving experience. The design focuses on simplicity, accessibility, and interactivity to make the process of choosing, purchasing, and tracking gifts a hassle-free experience.

The main screen of GiftDrop is visually appealing and easy to navigate, with intuitive icons and clear labels that help users quickly find the features they need. The screen is divided into several sections, such as "Featured Gifts," "Popular Gifts," "New Arrivals," and "Gift Categories," each with its own set of product images and descriptions.

Users can browse through various categories such as "Anniversary," "Birthday," "Valentine's Day," and "Wedding Gifts," among others. Each category provides an extensive range of gifts tailored to specific occasions. Users can also filter the gifts based on price, popularity, and other relevant factors, ensuring that they can quickly find the right gift for their needs.

The product detail page provides users with all the information they need about a specific gift, including its description, images, pricing, and availability. Users can also view related products, read reviews from other users, and even share the gift on social media platforms.

When a user decides to purchase a gift, they can quickly and easily add it to their cart and proceed to the checkout page. The checkout page is designed to be user-friendly, with the option to add a gift message, select a delivery date and time, and choose from various payment options such as credit card, PayPal, or Apple Pay. Users can also save their payment information for future purchases, providing a convenient and seamless checkout experience.

Once the order is placed, users can track the delivery status of their gift in real-time. The app provides push notifications and updates on the progress of the delivery, ensuring that users are always aware of the status of their gift. Users can also view the delivery address and contact information for the recipient, making it easy to ensure that the gift is delivered to the right location.

GiftDrop's user interface design is optimized for different screen sizes and resolutions, ensuring that it is accessible and easy to use on a range of devices.

The app is also designed to be interactive, with the option for users to leave reviews and ratings on products, allowing them to share their experiences and provide valuable feedback to other users.

Overall, the user interface design of GiftDrop is innovative, intuitive, and designed to provide users with a seamless and enjoyable gift-giving experience. The app's emphasis on simplicity, accessibility, and interactivity sets it apart from other gift delivery apps on the market, making it the go-to choice for users looking for a convenient and hassle-free way to send gifts.

BACKEND DEVELOPMENT:

The backend development of GiftDrop is a crucial aspect of the app's functionality, as it involves managing all the data and transactions between the front-end interface and the server-side operations. In order to ensure that the app operates smoothly and efficiently, several key components are required.

Firstly, the database management component involves designing and creating tables to store critical information such as user accounts, gift categories, product details, and order histories. This is essential to ensure that data is well-organized, easily accessible, and can be retrieved in real-time, thereby ensuring seamless user experience.

Secondly, the development of Application Programming Interfaces (APIs) is critical in ensuring seamless communication between the front-end interface and the server-side operations. The APIs would be designed to manage user authentication, product search and filtering, cart management, payment processing, and order tracking. This would ensure that GiftDrop is an intuitive and user-friendly app that can be used seamlessly.

Thirdly, the integration of multiple payment gateways, such as PayPal, Stripe, and Apple Pay, ensures that users have a wide range of payment options. This would enhance the versatility of the app and make it easier for users to pay for the products they want. Furthermore, advanced security measures such as two-factor authentication, firewalls, and SSL encryption are included in the backend development to ensure that user data is secure.

Fourthly, cloud infrastructure is used to ensure scalability and reliability, thereby ensuring that the app can handle peak traffic and demand without compromising on performance or user experience. Amazon Web Services (AWS) or Microsoft Azure would be leveraged to provide the app with the flexibility to manage high traffic loads without impacting the user experience.

Finally, analytics and reporting tools are included in the backend development to provide valuable insights into user behavior, sales data, and order tracking. These insights can be used to make data-driven decisions that can enhance the user experience, thereby making the app more innovative and forward-thinking.

In summary, the backend development for GiftDrop involves several key components, all of which are critical in ensuring that the app is intuitive, user-friendly, and efficient. These components include database management, APIs development, payment gateway integration, security and encryption, cloud infrastructure, and analytics and reporting. Together, they create a secure, scalable, and efficient infrastructure that enhances the app's performance, reliability, and user experience.

PAYMENT GATEWAY INTEGRATION:

The payment gateway integration for GiftDrop is a critical component that enables the app to process payments securely and efficiently. The integration involves several steps, including selecting the payment gateway provider, creating a merchant account, integrating the payment gateway API into the app, and testing the payment gateway to ensure that it functions as expected.

The first step is to select the payment gateway provider that best suits the needs of the app. Popular options include GPay, Paytm, Phonepe and PayPal, among others. Factors to consider when selecting a payment gateway provider include transaction fees, security measures, ease of integration, and supported payment methods.

Once a payment gateway provider is selected, the next step is to create a merchant account. This involves providing business information, such as business name, address, and tax identification number, and verifying the account through email or phone verification.

After creating the merchant account, the payment gateway API is integrated into the app. This involves creating a form or page where users can input their payment information, such as credit or debit card details, and securely submitting that information to the payment gateway API. The API then processes the payment and sends a response to the app indicating whether the payment was successful or not.

Finally, testing is done to ensure that the payment gateway functions as expected. This involves conducting various tests, such as making test payments, testing the refund process, and ensuring that the payment gateway is compatible with the app's interface and functionality.

In summary, the payment gateway integration for GiftDrop is a crucial component that ensures that the app can process payments securely and efficiently. The integration involves selecting a payment gateway provider, creating a merchant account, integrating the payment gateway API into the app, and testing the payment gateway to ensure that it functions as expected. The end result is a seamless and secure payment process that enhances the user experience and helps to drive business growth.

DATA PRIVACY AND SECURITY:

Ensuring the privacy and security of user data is a top priority for our app. We understand the sensitivity of personal information, and thus, we have implemented strict measures to safeguard user data against potential threats and vulnerabilities.

To ensure data privacy, we employ secure protocols, such as SSL/TLS encryption, to protect sensitive information exchanged between users and the app servers. Additionally, we use industry-standard authentication methods, such as two-factor authentication, to prevent unauthorized access to user accounts.

To ensure data security, we conduct regular security audits and penetration testing to identify and mitigate potential security threats. We also adhere to data protection regulations, such as the General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA), to ensure compliance with relevant data protection laws and regulations.

Moreover, we provide users with full control over their data and allow them to delete their account and data at any time. We also make sure to obtain user consent before collecting any personal information and provide transparent information about how their data is being used.

Overall, we are committed to ensuring the privacy and security of user data and continuously strive to improve our security measures to ensure the highest level of protection for our users.

PUSH NOTIFICATION SYSTEM:

The push notification system for GiftDrop is an essential feature that enables the app to send notifications to users' devices. The system involves several steps, including setting up push notification services, integrating push notification APIs into the app, and designing and scheduling notifications.

The first step is to set up push notification services. This involves creating an account with a push notification service provider such as Firebase Cloud Messaging (FCM) or Apple Push Notification Service (APNS). Once the account is created, the app must be registered with the push notification service provider.

The next step is to integrate the push notification APIs into the app. This involves creating a unique identifier for the user's device, registering the identifier with the push notification service provider, and configuring the app to receive push notifications.

Once the push notification system is set up, the app can then send notifications to users' devices. Notifications can be triggered by various events such as when a user receives a new message, a new gift is available, or a delivery status changes. The notifications can be designed to include various types of content such as text, images, and sounds.

Notifications can also be scheduled to be sent at specific times or based on user preferences. For example, the app can allow users to select the time of day when they want to receive notifications or allow them to choose which types of notifications they want to receive.

In summary, the push notification system for GiftDrop is a critical feature that enables the app to send notifications to users' devices. The system involves setting up push notification services, integrating push notification APIs into the app, and designing and scheduling notifications. The end result is an app that can provide timely and relevant notifications to users, enhancing the user experience and driving user engagement.

TESTING AND EVALUATION:

Testing and evaluation are essential steps in the development process of the GiftDrop app to ensure that it functions optimally and meets user expectations. The testing and evaluation process involves several stages, including unit testing, integration testing, system testing, and user acceptance testing.

Unit testing involves testing each component of the app in isolation to ensure that it functions correctly. This includes testing individual functions, algorithms, and data structures. The goal is to identify and fix any errors or bugs that may affect the functionality of the app.

Integration testing involves testing the interactions between different components of the app to ensure that they work together correctly. This includes testing the communication between the app and the backend server, as well as testing the integration of third-party APIs, such as payment gateways and push notification services.

System testing involves testing the app as a whole to ensure that it meets all functional and non-functional requirements. This includes testing the app's performance, security, usability, and accessibility. The goal is to identify any issues that may affect the user experience and to address them before the app is released to the public.

User acceptance testing involves testing the app with actual users to ensure that it meets their needs and expectations. This includes testing the app's usability, design, and functionality, as well as gathering feedback on the user experience. The goal is to identify any areas where the app can be improved to enhance the user experience and drive user engagement.

In addition to these testing stages, the app's performance and user engagement can also be evaluated using analytics tools. This involves collecting and analyzing data on app usage, such as the number of downloads, user retention, and user engagement. The data can be used to identify areas where the app can be improved to enhance user engagement and drive business growth.

In summary, testing and evaluation are essential steps in the development process of the GiftDrop app. The testing process involves several stages, including unit testing, integration testing, system testing, and user acceptance testing, while the evaluation process involves analyzing app usage data to identify areas for improvement. By conducting thorough testing and evaluation, the app can be optimized to provide a seamless user experience, enhance user engagement, and drive business growth.

RESULTS AND DISCUSSION:

The results of the GiftDrop app testing and evaluation show that the app performs well and meets the functional and non-functional requirements. The app was tested using a variety of testing methods, including unit testing, integration testing, system testing, and user acceptance testing, as well as analytics tools to gather data on app usage.

The unit testing phase identified and fixed several bugs and errors, ensuring that each component of the app functions correctly. The integration testing phase tested the interaction between different components of the app, such as the backend server and third-party APIs, ensuring that they work together correctly.

The system testing phase tested the app as a whole, ensuring that it meets all functional and non-functional requirements. The app's performance was tested, and it was found to be fast and responsive, with no significant delays or crashes. The app's security was also tested, and it was found to be secure, with no vulnerabilities that could compromise user data.

User acceptance testing was conducted with actual users to gather feedback on the user experience. Users found the app to be easy to use, with an intuitive interface and clear navigation. They also appreciated the app's features, such as the ability to track gift delivery status and the integration of multiple payment gateways. Overall, users were satisfied with the app's functionality and performance.

Analytics tools were used to gather data on app usage, such as the number of downloads, user retention, and user engagement. The data showed that the app was well-received, with a high number of downloads and user engagement. The app's retention rate was also high, indicating that users found the app valuable and continued to use it over time.

In conclusion, the testing and evaluation of the GiftDrop app showed that it performs well and meets the functional and non-functional requirements. The app's user experience was tested and evaluated using a variety of methods, including unit testing, integration testing, system testing, and user acceptance testing, as well as analytics tools to gather data on app usage. The results show that the app is well-designed, easy to use, and meets user expectations. The app's performance and user engagement are also strong, indicating that it has the potential to drive business growth

CONCLUSION:

Innovation is at the heart of the GiftDrop app, and its conclusion reflects the app's commitment to bringing new and exciting solutions to the gift delivery industry. With its seamless user experience and robust functionality, the app is poised to change the way we think about gift-giving and make it easier than ever before.

By integrating cutting-edge technologies and design principles, the GiftDrop app offers a comprehensive solution for anyone looking to send gifts to friends and family. Its user-friendly interface and intuitive features make gift-giving a breeze, while its backend development and payment gateway integration ensure that orders are processed quickly and securely.

Throughout the development process, the GiftDrop team has remained focused on delivering a high-quality app that meets the needs of its users. The testing and evaluation results are a testament to this dedication, showing that the app performs well and meets all functional and non-functional requirements.

Looking to the future, the GiftDrop app has the potential to transform the gift delivery industry and set a new standard for excellence. With its innovative approach to gift-giving and commitment to user satisfaction, the app is poised to become a leader in its field and a must-have for anyone looking to send gifts to friends and loved ones.

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