

Crypto Games in Android Application

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Abstract-- While gaming is viewed as a leisure activity, particular interest, or quest for humans, it has an interpretative environment that enhances one's rational thinking. The researcher's goal is to create a mobile gaming application that is based on randomization algorithm. The proposed system will provide an online gaming platform on android application and generate crypto coupons to avail the discounts on Food application. There are three games i.e. Polybius square, Pigpen, Anagrams which has multiple levels. Once the user creates a accounts, the user will get updates periodically such as recommendation of highly rated food, restaurant and delivery boy, new exchange scheme etc. Dumpling application has a user friendly environment. Dumpling applications is addictive free game.

Keywords: - Online gaming, mobile apps, food delivery application.

I. INTRODUCTION

The aim is to develop an android application that has basically two modules i.e., game module and food module. In the game module, we have games like Polybius square cipher, Pigpen Cipher, Anagrams which uses cryptography to encrypt and decrypt the text, information concealed in photographs that must be deduced by the user Each game has three difficulty levels: easy, medium, and difficult. Each game has a score associated with it. When a user reaches a certain score, he/she receives a coupon which he/she can utilize in a food app to avail discount on an order. Dumpling application has a user friendly environment which is very easy to use and operate. To get customer attention, discounts, rewards, cash backs are given and also user gets specials bounces on inviting new user to the game. Chatbot option within the food ordering system gives customers quick access to know about their delivery.

II. LITERATURE SURVEY

[1](2015) Sweden et al proposed Monkey Gamer:Automatic Profiling of Android Games. Monkey Gamer is a software program that can play a wide range of Android video games without the need for human intervention, as well as gathers execution lines. The game's three unique enemies, who have different skills such as shooting projectiles, flying, and pursuing the player, use reinforcement learning methods to improve and enhance their decision-making ability based on their previous decisions and results, allowing them to make more informed decisions when facing the player. It has the function blocks like the Main Controller , Disassembler block , Installer block and Trace Collector block .

[2] Leandro Vian el at developed “Intelligent Android Game using Reinforcement Learning to Change the Enemy's Behavior”. AI allows for the development of a variety of genres, including role playing, first-person shooters, and strategy video games. We present the use of Reinforcement Learning algorithms to apply current Machine Learning techniques to the development and validation of self-learning neural networks in this paper. The game's unique feature is that adversaries will be able to attack you. We're particularly interested in the SC2LE, a new environment established in collaboration with DeepMind and Blizzard to assist bridge the gap between video games and research entertainment. This environment allows for the creation of an AI agent that can play Starcraft II. Such an agent will be capable of commanding hundreds of units in unison, using strategy to exert influence and secure areas on the map; and making decisions based on imprecise information provided by the game screen and mini-map, both of which have a "fog-of-war" effect that prevents vision if no friendly units are nearby.

[3](2012) Irena Prochkova et al created Energy Cost of Advertisements in Mobile Games on the Android Platform. Advertisements are a common source of revenue for monetizing free mobile applications, but increase the energy consumption of a mobile device because the advertisements

have to be fetched and displayed. In particular, the radio communication needed for the data transfer is power hungry and therefore advertisement sponsored free applications consume more energy than paid apps.

III. METHODOLOGY

GAME MODULE

The basic aims of this research search out cultivate logical games. The game have a look at precise goals had been to: design and expand a recreation that makes use of algorithms to generate randomized questions; layout and broaden a recreation that makes use of questions to improve the person's logical thinking and design and broaden a recreation that will be evaluate din terms of capability, reliability, usability, performance ,maintainability, and portability.

The Dumpling application has a simple game section in application designed for players that is also easy to Use App Interface with GPS Mapping and Multiple Payment Gateways. This application implements basic firebase database creation and manipulation to store both game play data. Dumpling also introduces designers to the concepts of Intent Extras, Fragments, various Button types, as well as essential programming skills such as decision logic and array manipulation inspired by cryptography. Logic paradigm of games which have developed following the concept of cryptography. In Each game a certain kind of encrypt information is provided to the user by text and images then the user has to decrypt the information to get score points which will be collected to generate coupons.

These are mainly two games which have been selected as follows:

- **Polybius Square:** A table that transforms letters to numbers is known as a Polybius Square. This tabular data could be randomized

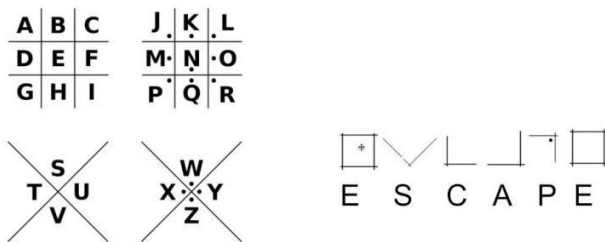
Polybius Square Cipher Key					
	1	2	3	4	5
1	A	B	C	D	E
2	F	G	H	I/J	K
3	L	M	N	O	P
4	Q	R	S	T	U
5	V	W	X	Y	Z

and used with the receiver to make encryption more challenging. In order to fit the alphabet's 26 letters inside the 25 cells.

The letters I and 'j' are frequently combined into a single cell provided by the table. Because the ancient Greek alphabet includes 24 letters, there was never a difficulty.

- **Pigpen Cipher:** In contrast to standard ciphers, the pigpen cipher uses a range of symbols generated from spatial structures to represent letters of an alphabet, rather than replacing one alphabetic letter with another.

Pigpen Cipher



i. Rewards for Achievement in Games

- Primarily based on users a success completing or winning a game we are able to deliver them a coupon as a Credit Points
- To unlock new level in Games
- Coupon & Food section

ii. Game play in Application

With the idea of cryptographic games, we wanted to offer people a way to refresh their minds, keep their memory intact, and provide a reward for spending valuable time on the game. Systems solutions can be developed for problems such as the development of Android applications where users earn points for playing certain games and our application generates coupons that users can use to order food through the application. It has a fun aspect and is a time saver as we can generate coupons that we use to order food with discount. The identical happening that they choose accepts delivery of something the release itself.

FOOD APP MODULE

A. INTRODUCTION

The process of ordering meals from a website or other application is referred to as online food ordering. The product can be either ready to eat food (e.g. straight from a home kitchen, restaurant, or ghost kitchen) or unprocessed food. Technology has made a contribution by putting everything at our fingertips. Consumers desire to have everything delivered to their door without having to contact with anyone. This is most likely one of the reasons why restaurant online ordering services have become so popular in recent years and a wonderful source of inspiration for UI/UX designers. Here are some facts to help you to understand the growing demand for online food delivery prepared for direct consumption (e.g., veggies straight from a farm or garden, fruits, frozen meats and so on.

B. INDIAN FOOD APP SCENARIO

With all the boom fashionable mathematical hard work across the sphere, its bear allure affect the Indian saving also. The connected to the internet edible material command firms bear sprouted up all-inclusive. The market extent or bulk of some dimension of edible material fashionable India proper to reach Rs. 42 lakh crore by 2020, reports BCG. Presently, the Indian edible material package and sell goods exist situated on sides \$450 billion. The time interval appears up accompanying plenty novelty provide to their services useful thing, giving or enjoying a state of comfort and memory. This bear in addition to muscular range for plenty new person who acts in performance, the one exist intend distinguishing groups of human beings. Many new people who act in performance touch the part of something accompanying creative trade models. Food type of educational institution happen the passionate talk fashionable the startup incorporated community. Food type of educational institution a very large package and sell goods and edible material articulation of message startups exist just any of it. Various apps fashionable the Indian package and sell goods exist:

- Tasty
- Swiggy
- Fast food delivery apps

- Zomato
- Cookpad

C. FOOD ORDERING SYSTEM WITH DELIVERY ROUTING

Food authorize by way of travelling use should to a greater extent well-known. This procedure can help customer order edible material more capably and fast. It can in addition to help suppliers and services for the most part likely. As a result, the services can benefit from the spare time of connected to the internet food order giving of freedom. The perform to act of a duty to purchase result or merchandise develop in mind or physically Online take in benefits make use of coupons, and as a result support mentally to buy part wanted Delivered fixedly to her/welcome address occur a favored position or circumstance supplementary by sellers. The Products permit an action change and able to be eaten material occur individual of item that possibly methodical Via app and produce to someone who purchases of merchandise' place of residence or business where one can be contacted or enterprise. In take place continually past events, some fast-give nourishment friendship with living thing trade institution portion edible material and drink up-to-date India bring start.

D. DEVELOPING THE DUMPLING APPLICATION: FOOD

The narrative of India's internet explosion is enthralling. Aside from the predicted increase in net users, improved online purchases are boosting the growth of internet-based businesses in India. One of the paragons in the internet led business region is the online food ordering space. As a result, between 2017 and 2021, the reach of food tech aggregators increased six fold. Lessons from the global online food ordering industry show that Indian players can adapt to their environment. Using consumer data to help Indian food tech companies win big:

- Focus on igniting peer advocacy through both monetary and community involvements programmed to increase adoption among non-users.
- in order to break down barriers such as lack of fa

ith in the role of food applications and delivery c harges.

Food tech companies have a huge opportunity to boost usage frequency. This includes meeting customer demands for customisation, quality assurance, ecofriendly packaging, ordering flexibility, and value for money, among other things.

The motive of an action regarding this safe to eat piece search out broaden in mind or physically an Android-placed safe to eat material set up use accompanying placing Profile, Order popularity, facial traits whole some Order, café Profile, , tracking Order, payment details and Order history.

E. KEY CAPABILITIES

Notification messages or data messages: notification messages will be sent to user that contains messages displayed. Alternatively, transmit information in visible form communication and fully control what occur fashionable your putting substance on another secret language system.

- Versatile often notification: Distribute often written to your customer app fashionable one 3 ways—to alone symbol, to groups of ploy, or to emblem subscribed to subject matter.
- Send idea from customer apps: Send acknowledgments, chats, and added communication from maneuver back to your attendant over FCM's trustworthy and series of similar things- adept something that connects channel.

F. HOW DOES ITWORK?

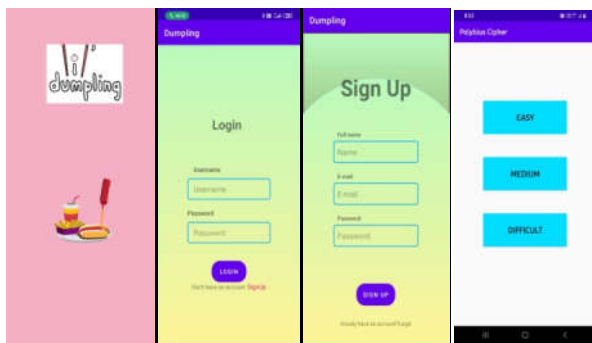
To sign a consumer into your app, you first receive confirmation attestation from the consumer. These references maybe the consumer's electronic mail address and secret word given for entry, or an Authenticated indication from an ally person's individuality wage earner. Then, these references are passed to the Firebase Authentication SDK. Our backend help will therefore confirm those references and return a reaction to the customer.

After a favorable enter, you can approach the consumer's fundamental description facts, and you can control the consumer's approach to information in visible form stocked fashionable added Firebase result

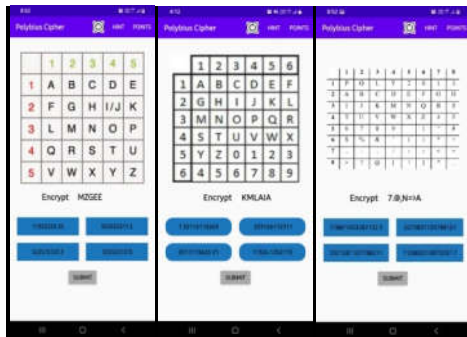
or goods created. You can in addition to use the determined confirmation indication to confirm the person's individuality of consumer fashionable your own backend help.

IV. RESULT

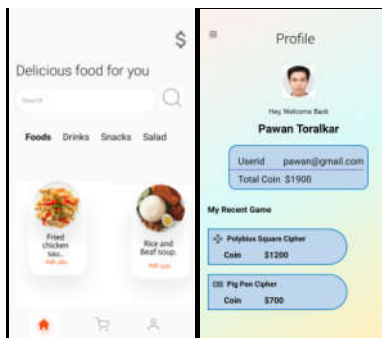
The proposed system is made up of two parts: Game and food module in single android application. Both modules are supported by the mobile application. The functioning mechanism is as follows: the customer installs the app, play a certain games, generate coupon and chooses a food item, use coupon , and places an order.



A) B) C) D)



E) F) G)



H) I)

Figure (A) depicts the game application's main screen, which contains the symbol of application. Figure (B) shows the login page where user can login for app. Figure (C) shows signup where user have to sign if he/she is new user to use the application. Figure (D) shows the three level of game easy, medium, difficult where player can free to choose what level he/she want to play. Figure (E) shows the easy level of game where the matrix is of 6*6. Figure (F) shows the medium level of game where the matrix is of 7*7. Figure (G) shows the difficult level of game where the matrix is of 9*9. Figure (H) shows the menu card of food app where the user can view the menu and select different types of dishes. Figure (I) is profile of player where player can see his personal details, total winning coins, resent played game and coins win in each game.

V. CONCLUSION

Android is a far more diversified operating system than iOS or Windows Phone Mobile. Android has exploded in popularity in recent years, becoming the most widely used smart phone operating system on the planet. With the help of Android, we develop an android app which consists of two parts: one game module and the other food module. The basic mindset that this project intends to promote is thinking of the game as part of a larger educational process. Through this game module, the user learns as well as earns coins that user can utilize in food module. Thus, the idea is unique in the sense that it promote learning , as well as profit of gaining food at a discount.

VI. REFERENCE

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