



## Cloud-based Android Application with NFC for Remote access

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**ABSTRACT:** *This type of access to the clients can provide relief to the owner who is handling organisations at multiple location in order to handle the security of his firm from his phone or web application. However IOT has made it possible to handle the different functionalities of the sensors using this technology, but the technology we are using in this domain is NFC. Which allows the owner to give the access to the authorized client only who can use the service efficiently. This topic consists of a combination of both IOT and Artificial Intelligence. In this paper we introduce the suitable technology and ideas to be implemented for some of the startups and organisations that are going trending now. When it comes to staff hiring in a company it requires a lot of human resource to be implemented. The paper includes methodology used by SWIGGY, VOGO. NFC.*

**Keywords:** *NEAR FIELD COMMUNICATION, GPS, ARTIFICIAL INTELLIGENCE, IOT.*

### **1. INTRODUCTION:**

The topic chosen for the advancement of the various methodologies in the same paper. The paper focuses on implementation of IoT, Artificial Intelligence and GPS methodologies in the same domain. The companies like SWIGGY, VOGO are using the technologies in which the control is in individual hand to operate the functionalities using IOT. We can implement this idea using NFC technology. We are trying to provide accessibility to the different user by the authorized person who is present in remote place. NFC allows the individual to access the service provided by the companies anywhere, anytime. As per statistics of the advancement in technology we found that we can make the efficiency of working of some sensors to the greater extent which is robust and reliable to use.

### **2. Methodology:**

This paper includes the process of how the office can be managed from the remote place in order to make it more secure and reliable to use the application. The methodology introduced here will be reducing the labour cost and requires less human resource or negligible.



- **NFC (NEAR FIELD COMMUNICATION)**

NFC card for indicating each of them. To meet the user requirements, the proposed application consists of the main features i.e. online access of employees and managers, capability of using the existing NFC card and scanners, no limitation of employees, no limitation of data storing, and generating reports.

- **GPS (Global Positioning System)**

The technology used here is GPS is used to find the details of the user from which area or which location he is accessing. When the user sends the request for using our services then the location can describe the correctness of the remote place whether my services are available in these area or not.

- **OTP (ONE TIME PASSWORD)**

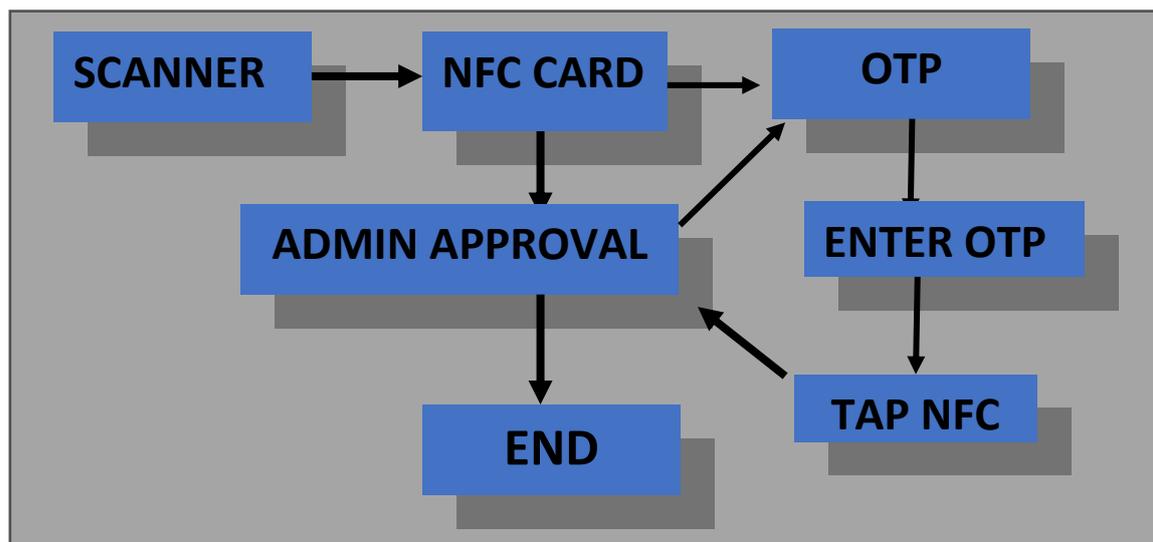
A one-time password (OTP) is a random password generation system which is used for accessing some services and used to login from the remote places.

- **Algorithm:**

1. Tap the NFC card to the scanner.
2. Request will be sent to the admin.
3. Admin will confirm your payment .
4. After payment confirmation the door gets open. As soon as you enter the OTP
5. You can insert the card in the card slot to access the current and other services.
6. After the completion tap the NFC card the bill will be sent to your registered mobile number.

**Note:** User can watch all the things happening in the remote location via CCTV.

- **Data Flow Diagram:**



**FIG:DATA FLOW DIAGRAM**

### 3. RESULT:

As we know result is the final consequence of a sequence of actions or events expressed qualitatively or quantitatively .Possible results include advantage, disadvantage, gain, injury, loss, value and victory. We know



that after the implementation of the project we get the value of the different sensors .We can access the data easily from the remote place. Its advantage are: WIFI connection is advanced technology used to display the contents or the measure given by the different sensor available. Make the efficient way of connection over large areas.

#### 4. Conclusion:

This system is a real time worker ,will enable user to use it as a remote system to connect several types of devices having sensors to a single mobile application. This system will provide the user the user-friendly environment to perform different function like helps to display the measure provided by the users. It will make people use of Internet of Things domain. This project will help to display the measure of sensors available on Arduino connected to Wi-Fi on mobile.

Basically by studying the existing system, the system we proposed is more suitable as it is generic and user friendly and displays the measure of sensors . This project also provides services depending upon connected. Using this technology the person can observe the data anywhere and can react quickly.

#### 5.Future Scope:

In future the app can be made more generic which can generate more application and fields where the system can be implemented to reduce the man force We can implement more functionality in the application like old measured data can be shown to the user. Depending on the services we can generate and provide more functionalities to the system.

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