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Identity Verification

Application for Identity Verification and Work Eligibility Check

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Application for Identity Verification and Work Eligibility Checking

Innovature Consulting Services implements 'Application for Identity Verification and Work Eligibility Check' for the employees in different industrial establishments.

Project Overview



In recent years, the adoption and usage of integrated circuit cards for identification purposes, such as My Number and Driver's License, is growing fast. Corporations and individuals are required to take stricter measures and security features, as the crimes involving counterfeit cards are on the rise. We developed the Application to make card checking easy and stringent, leading to wider adoption of the service.

Once the application is installed, consumers can use the NFC function of their smartphones and tablets to securely perform the currently very time-consuming 'Identity Verification' process. The acquired data is strictly managed in accordance with the privacy policy. This system is compatible with the four types of cards that are widely used in Japan - My Number Card, Driving License, Residence Card and Passport. It has extensive usage in governmental and industrial establishments including local government offices, public institutions, financial agencies, hotels and restaurants etc.

Business/ Technical Challenges

NFC Compatibility: The application works on NFC technology, for reading data from integrated circuit cards. A check mechanism had to be incorporated to identify devices, based on NFC reading capabilities. All Android and iOS devices does not have in-built NFC reading capabilities, hence in such cases the NFC reading process had to be disabled to avoid crashes.



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During the initial stages of the project, there was widespread non-availability of integrated circuit cards in the development environment. So, we had to create an integrated circuit card and simulate NFC reading. This took extra time, both in the development effort and in the identification of bugs. The data security and privacy was another major concern, which we managed by deploying high-security, general-purpose cloud service, with SSL encryption.

Technologies/Platforms Used

| | |
|----------------------|--|
| Application Type | iOS, Android, Web |
| Development Language | Kotlin, Swift, Vue Js, Python Django |
| Database | CoreData, Room, MySQL |
| Tools/Libraries | LibJeID, Google Vision, Stripe Payment Gateway |

Optimization Issues : Operating System provides only limited time for reading data from the card. If the time-limit is exceeded, then connection is terminated. So the reading process had to be optimized, to reduce connection termination issues.

Secure Data Collection : The application reads the user's personal data from the integrated circuit card, so data security had to be maintained to avoid security breaches.

Implementation Approach

The system consists of three-parts; 1) Mobile Application, 2) Web Application, and 3) Web API Service. The mobile application reads data from the integrated circuit card using NFC, saves it to the back-end server. It provides five different types of usages based on user types. The web application lists all data from the backend server, and this is used to manage the displayed content. The Web Service provides APIs to mobile applications and web portals, to read user's data and write data to the database. Users can manage these data through the web application.

Business Benefits & Key Features

Simplified Identity Verification : The application makes it possible to conduct the demanding identity verification work, much more easy and convenient. Identity verification is a mandatory requirement, when submitting applications and issuing certificates, in the local government and public institutions.

Data Management : The application greatly improves the efficiency of copying, documentation, storage and transcription of employment data of financial Institutions.

Candidate Data & Visualization : The application makes it possible to easily verify the identity of employees, when they apply for part-time jobs or employment. The system also visualizes employment history and makes the job application process smoother, as well as enabling IT based productivity tracking.

About Innovature



Innovature provides IT consulting to various industry segments like retail, utilities, media & entertainment, energy etc and leverages AI, RPA and block chain technologies to deliver business growth. ISO certification reinforces its pole position globally in the field of information security, as largescale data is processed for effective decision making. Innovature has for more than a decade expertly steered its clients worldwide towards innovative products and services for their digital transformation. It has a track record of successful execution of more than 600 projects for nearly 100 organizations across the world.

For more information, please contact our consultant

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