Shaeir V. Kinudalan

BSCS-Irreg

Detecting Data Leaks via Sql Injection Prevention on an E-Commerce

The objective of this project is to prevent SQL injection while firing queries to database and to make the database secured. This system is online so no need of implementation. It can be accessed through internet from anywhere. The system uses SQL Injection mechanism prevention to keep the data safe and secure from sql injection attacks.  
The highlighted part here is encryption of card data using AES (Advanced Encryption Standard) technique. The Online Shop secures the card payment and won’t let the card data to get hacked. While user doing a card payment, all the card data is encrypted and then stored into database. System also keeps user details in an encryption form using AES encryption.

**Visual Product Identification for Blind**

This project is developed to make the life of blind people easy. This is a camera based system to scan the barcode behind the image and read the description of the product with the help of Id stored in the barcode. This is very beneficial in case of finding out the description of packaged goods to the blind people and thus helping them in deciding to purchase a product or not especially which are packaged. This is because it becomes very difficult for the blind people to distinguish between the packaged goods. In order to use this system, all the user needs to do is capture the image on the product in the mobile phone which then resolves the barcode which means it scans the image to find out the Id stored.

Secure ATM Using Card Scanning Plus OTP

Our project proposes a secured ATM (Any time Money) system using a card scanning system along with Otp password system on sms for improved security. Usual ATM ssystems do not contain the OTP feature for money withdrawal. If an attacker manages to get hold of ATM card and the pin number he may easily use it to withdraw money fraudently. So our proposed system supports the ATM card scanning system along with an OTP system. Ths user may scan his card and login to the system .But after user is through with this authentication he may view details but is asked to enter OTP as soon as he clicks money withdrawal option. At this stage the system generates and sends a One time password OTP to the registered mobile number to that particular user.

Visual Product Identification for Blind

This project is developed to make the life of blind people easy. This is a camera based system to scan the barcode behind the image and read the description of the product with the help of Id stored in the barcode. This is very beneficial in case of finding out the description of packaged goods to the blind people and thus helping them in deciding to purchase a product or not especially which are packaged. This is because it becomes very difficult for the blind people to distinguish between the packaged goods. In order to use this system, all the user needs to do is capture the image on the product in the mobile phone which then resolves the barcode which means it scans the image to find out the Id stored. This application really benefits blind and visually impaired people and thus making their work of identifying products easy.

# IOT Based ICU Patient Monitoring System

Intensive Care Unit or ICU is where the patients who are critically ill are admitted for treatment. For such critical conditions the Doctors need to have an all-time update patient’s health related parameters like their blood pressure, heart pulse and temperature. To do manually, this is too tedious a task and also for multiple patients it becomes close to impossible. For this type of situations this IOT based system can bring about an automation that can keep the Doctors updated all time over internet.

# Fingerprint Based Exam Hall Authentication

Here we propose a fingerprint based examination hall authentication system. The system is designed to pass only users verified by their fingerprint scan and block non verified users. Our system consists of a fingerprint scanner connected to a microcontroller circuit. In registration mode the system allows to register upto 20 users and save their identity with respective id numbers in the system memory. After storage the person needs to first scan his finger on the scanner. The microcontroller now checks the persons fingerprint validity. If the fingerprint is authorized the microcontroller now sends a signal to a motor driver. The motor driver now operates a motor to open a gate.

# Third Eye For Blind Ultrasonic Vibrator Glove

The “Third Eye for Blind with Vibrating Ultrasonic Glove”, is designed to help the blind to overcome the lack of visual sense, by using other senses like sound and touch. It uses audio and vibration signals to notify the user about upcoming hurdle. As the distance between glove and obstacle decreases, frequency of both audio and vibration signals increases. Thus the system helps to ease the navigation process for the needy.

# Solar Powered Battery Charging With Reverse Current Protection

Solar energy is a very efficient source of green energy that is available for free. But it needs to be coupled with proper storage for best use. Also to store it we need to use charge controlling circuitry to protect panel from reverse currents as well as to charge the battery efficiently. So we demonstrate this concept by using a mini solar panel to charge a rechargeable pencil cell battery. Also we use a charge control circuit designed to stop reverse current flow and charge the battery effectively using the solar panel. Thus this allows us to effectively provide solar battery charging with reverse current protection.