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Generating Unique Identification Number to Product Manufacturing

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Abstract: ***It is possible to identify any product that is created, stored, or sold out using a unique identification number. It demonstrates how this programme of intermediary organisations which have been generating identification to Products of groups' exposes the purposes and Product IDs of those organisations. An increasing number of entities now have unique identifiers (UIN). UIN has the potential to make database integrations considerably more effective, which is one benefit. In order to locate duplicate records within a database or to compare identical publications across databases, unique identifiers (UIN) are thought to be an effective key. The goal of the current study is to determine how effectively UIN serve as matching criteria in the integration of product ID and manufactured product. We analyse this data to find any matching errors that may have occurred. Users of the UIN Portal application, both internal and external, will be able to request that UINs be allocated to goods made in their factories. Therefore, this project aims to create features that let users accomplish this. This project seeks to provide UIN generating features as well as Commissioning capability and will enable users to keep master data necessary for the application. These systems' main aim is to build or construct a UIN identifier for a manufactured or stored product. The information is also kept in a data base use. Additionally, it helps both the client and the administrator track products requests made to produce UINs or storing in warehouses. Once the product is no longer in use, the UIN retires. The UIN will be deleted before it is returned to the warehouse. It only becomes invalid if a defective component is fabricated and a UIN is assigned to the manufactured product. Additionally, it should be able to give the security aspect so that White box and penetration testing may be done.***
Keywords: Unique identification number, commissioning of the UIN, Microsoft PaaS Service, Linux App Services, testing, and penetration testing are some related terms.

I. INTRODUCTION

Unique Identification Number (UIN) is a unique serial number that will be assigned to every product manufactured by the Organization. UIN Portal application will allow inter and external users to request for the UINs to be assigned to products manufactured in their plants. So, this project intends to build features that allows user to achieve this goal. Along with UIN generation features, this project also aims at providing Commissioning capabilities and will allows user to maintain master data required for the application. A surge in discussion regarding techniques for specifically recognizing "Material" with in digital world has occurred in recent months. Parallel to this, it appears that the complicated discussions around the potential answers to the Unique identifiers provide a variety of problems for the publishing industry. whole. Consequently, individuals who really aren't intimately familiar with this have grown increasingly perplexed involved. Unique Identity Number is what it signifies. The Authority can identify units, sub-units, organization, or groups of organizations using this special number. The budgeting system used by the Authority is connected to these figures. The Authority's Representative at each unit shall inform the Supplier of the UINs to be utilized for delivery under the Contract. When identifying equipment that is in the warehouse or has previously sold out, UIN numbers are employed. To identify the product or material in the market, we have barcode readers or other scanners. Like this, each product that is manufactured, stored in a warehouse, or sold out has a unique UIN number assigned to it.

Portals have grown in popularity among information system professionals throughout time. An internet (or intranet) site specifically created to serve as a gateway to provide access to other sites is known as a web portal. A portal compiles information from several sources and makes it accessible to a variety of people. It offers a gateway to all network-accessible information in addition to web sites. It provides consolidated access to all pertinent apps and material.

It makes it possible for users of Organization information systems to safely connect among Organization information sub-systems. For their demands, most colleges, particularly those in industrialized nations, are either building or acquiring portal systems. It would been used to automate procedures, facilitate communication and engagement, and be used in a limited setting or department. A reciprocal impact or activity is what is meant by interaction.

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II. OBJECTIVES

The primary purpose of these systems is to generate or create a UIN number for a produced or warehoused product. Additionally, the data is stored in a database for later use. Additionally, it aids the customer in obtaining product information and aids the administrator in tracking product requests made for creation of UINs or storage in warehouses.

1) Increasing the website's congruence with strategic targets and goals.
2) Create a homepage and supplementary pages that effectively appeal to potential Organization audiences as well as other audiences.
3) Use an iterative process to update navigation, wayfinding, and search to make material more accessible to all users.
4) Make sure all relevant parties are proactively attached to the project and a continuous improvement program.

III. PROCESS OF QR CODE AND BAR CODE

A. QR Code

The QR code, commonly referred to as a two-dimensional barcodes, was developed in 1994 by the Japanese automotive Wave. "Rapid response code" is what QR stands for. A barcodes is an optical identification that computers can read and that carries information about the product to which it is attached. The details for a track, location, or identification that points users to a website is typically included in QR codes. A QR code uses four specified encoding modes to efficiently store data: numeric, alphanumeric, binary, and extensions are optional.

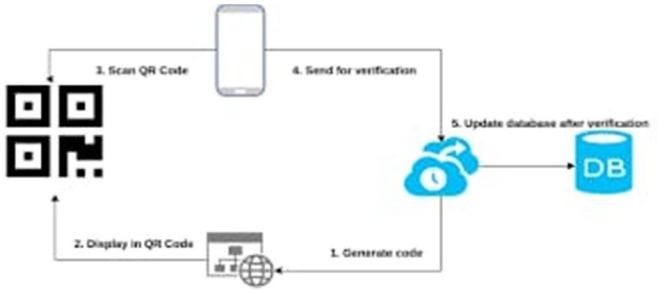


Fig:1 QR code

B. BAR Code

Barcodes can be used to represent data visually and machine-readably. Data was first represented in barcodes using parallel lines that had different lengths, spacings, and diameters. These consecutive or one-dimensional (1D) barcodes can be scanned using specialized optical scan, also called as barcode readers. Later, versions using geometric shapes, circles, rectangles, and other designs were produced in two dimensions (2D). Despite not really using bars, these are referred as bar codes or matrix codes. 2D barcodes can be read by primary 2-dimensional optical scan, which come in a few different types. Using an image sensor connected to a system running application to capture a photo of a barcodes and decode it using the picture is another way to read 2D barcodes. By applying the proper software applications, a mobile device with an inbuilt camera, including a smartphone, can be utilized with the latter type of 2D barcode scanner.

IV. AZURE SERVICES

Microsoft Azure, also referred to as Azure, is a type of cloud computing that Microsoft manages for the purpose of administering application through cloud services that are under its control. It provides infrastructure services (IaaS), platform as a service (PaaS), and software as a service (SaaS), and it supports a broad variety of scripting, tools, and framework, including both Microsoft- and third party developed systems and programmes.

A. Platform As A Service (Paas)

Platform as a Service (PaaS), also known as Platform-Based Service (PBS), is a class of cloud computing technology that enables users to specify, combine, operate, and maintain a portable stack consisting of a cloud storage service and one or more software platforms without having to worry about managing the infrastructure generally involved in designing and implementing the application(s); and to allow designers to develop, develop, and maintain applications.

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B. Microsoft Azure Sql Database

This is a managed cloud database (PaaS) provided by Microsoft (formerly SQL Azure, SQL Server Data Services, SQL Services, and Windows Azure SQL Database). A cloud database is a particular kind that is operated on a cloud platform and is available as a service. Managed database services oversee the database's scaling, backup, and high availability. Azure Database Server is a maintained database service, in comparison to AWS RDS, which would be a container service. Automated reliability and data protection upgrades, adaptive performance tuning, and ongoing learning of the individual usage patterns of your programme. When scaling is necessary, there is almost no app downtime. Multi-tenant app management and monitoring with the benefits of database isolation given by a single customer Use Microsoft and open-source software, such as REST APIs, Microsoft Visual, SQL Server Management Studio, VS Code, Cheetah, sql-cli, and the Azure Management Portal. Data protection techniques include encrypting, authorization, restricting access privileges to a part of the dataset, consistent monitoring, and audit to help uncover potential threats.

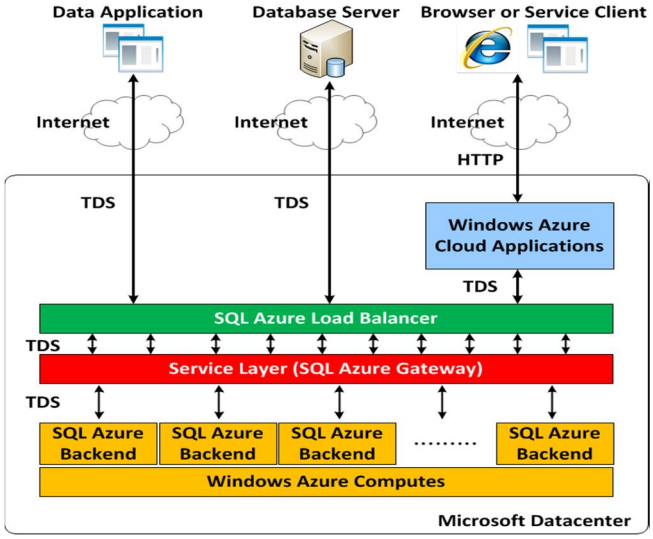


Fig:2 Microsoft Azure SQL Database

V. WORKING AND TESTING

They are put into practise after being translated into operational systems. As a nutshell, it is essential to creating a modern system that works well and depends on the customer's performance, which must be powerful and persuasive. arranging, researching switch procedures for living entities, and assessing possibilities Every strategy must be put into action. The idea must subsequently be converted as source code that satisfies the user's expectations.

The mechanism is now in place. Once it is proven that the system is error-free, it may be employed. The development and execution of the project place a focus on finding solutions to the problems outlined. Considering the elements in the research issue.

Customers will each have their own sign-in email address and password, but administrators and Organization users will have the option of single sign-on. Welcome screen following login.

To request a UIN number, use this. where admin is asked to approve the request. If a request is legitimate, the admin will approve it if it is not denied. Request Page creation. When a user wishes to create several hundred to a thousand requests at once, it is useful. then give the accurate information and generate the Set clear guidelines for the made-to-order item. Request Review is a page that the administrator can access to review requests made by requestors. It's being used to process mass requests and insert Excel files. An email will be sent to the user if the Regardless of the type is successfully generated. The administrator can view all requests made by users here. If the UIN is valid, it merely takes that number and presents this to the user and the admin. After the product is built, a unique 12-digit UIN number will be assigned to it, with the first two digits being alphabetic and the remaining ten being incrementally valued alphanumeric characters. In which some values are unusually not used, such as 0, 1, Q, I, and O, where all these values appear identical, and the reader may become confused.

Commission can be done in 2 methods:

1) USB Scanner

2) Manual Entry

After Some years of UIN generated to product will get Void/Retired.

a) Retired: UIN generated for the product will expire or retire after a certain period. When a product is no longer in use, the UIN is retired. The UIN will be deleted before it is returned to the warehouse.

b) Void: It only becomes void if a defective piece is made and given a UIN.

Once generated, the data can be exported to an excel sheet.

Only the admin who has been granted admin rights will have access to this page. Allocation index. where the administrator can view the assigned, distinctive alphabetic Schema Code. The status of the Allocate Score Flag will only be "yes" or "no." Indicator of Allocation, whether for testing or Supplier. It creates the Alias identity for a UIN number that has already been generated. Make an alias

VI. PENETRATION TESTING

An approved simulated assault is carried out on a computing system as part of a penetration test (pen test) to assess its security. To identify and illustrate the financial effects of a system's vulnerabilities, penetration testers employ the same tools, strategies, and procedures as attackers. Most assaults that potentially endanger an organization are often simulated during penetration examinations. They may assess a system's resilience to assaults from legitimate and illegitimate places as well as from a variety of system functions. A penetration test can probe any area of a system with the appropriate scope.

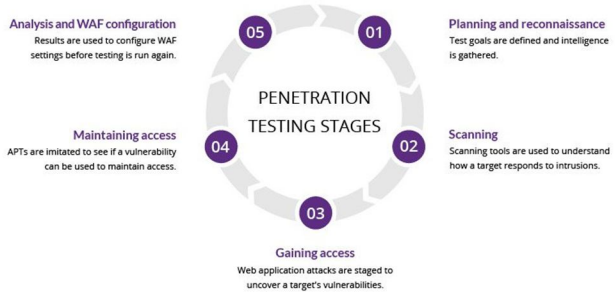


Fig:3 Penetration Testing

VII. CONCLUSION

The purpose of this paper is to provide a natural understanding of the UIN Portal, how is it Created with the complete Source code. Including each Layer from Database, Data Access Layer, Business layer and Presentation Layer (UI Layer). Where it uses ASP .NET MVC model which is (Model, View, Controller). Number of pages are Developed with same concept. Each View is Listed in the above document. This work is being accelerated to en compass a variety of segments concerning the public and Admins.

VIII. FEATURE ENHANCEMENT

The Web Team, the acting assistant vice president for strategic communication and marketing, services/chief information officer are presenting the website enhancement project as a means of identifying and resolving current website issues as well as laying the foundation for website development and enhancement in the future. This document will list the top website efforts, allowing resources to be allocated to finish them and giving university leadership a tool for resolving website complaints and problems.

At Later stage it can also be developed into android App Using Xamarin Technology

REFERENCES

[1] Alan Gelb and Anna Diofasi Metz, Identification Revolution: Can Digital ID Be Harnessed for Development? (Washington, DC: Center for Global Development, 2018).

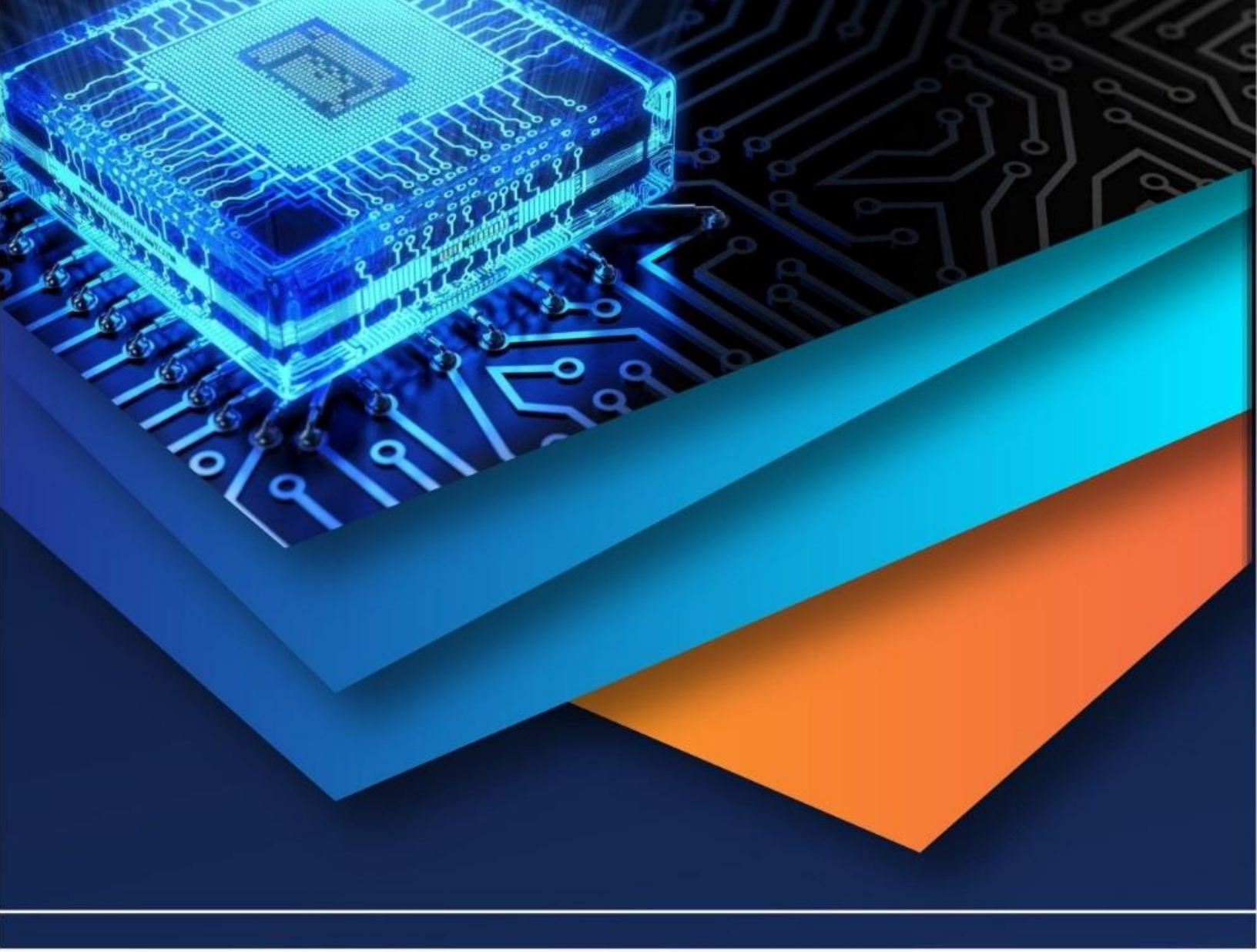
[2] Swagato Sarkar, 'The Unique Identity (UID) Project, Biometrics and Re-Imagining Governance in India', in Oxford Development Studies, Vol. 42, no. 4 (2014), pp. 516–33.

[3] Bidisha Chaudhuri and Lion König, 'The Aadhaar Scheme: A Cornerstone of a New Citizenship Regime in India?', in Contemporary South Asia, Vol. 26, no. 2 (2018), p. 128.

[4] Natasha Dow Schüll, 'Data for Life: Wearable Technology and the Design of Self-Care', in BioSocieties, Vol. 11, no. 3 (2016), pp. 317

[5] Smith, John. "Obama Inaugurated as President." *CNN*, cnn.com/2009/01/21/politics/obama-inaugurated-as-president/index.html. Accessed 21 Jan. 2021.

[6] Toward unique identifiers Published in: Proceedings of the IEEE (Volume: 87, Issue: 7, July 1999) Article #: Page (s): 1208 - 1227 Date of Publication: July 1999



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