



BHARAT HEAVY ELECTRICALS LIMITED (BHEL), BHOPAL
भारत हेवी इलेक्ट्रिकल्स लिमिटेड (बीएचईएल), भोपाल



Vocational Training Report

Title:

QR Code Generator

Training Period : 25-05-2023 to 22-06-2023

Submitted By:

Name - Ayush Suryawanshi

Registration No.-REG202301023

Token No.-VTN202300462

Project Guide:

Mr. Satyam Kushwaha

DY. Manager, Digital Transformation Group (DTG),
Bharat Heavy Electricals Limited (BHEL), Bhopal, India

CERTIFICATE OF GUIDE



This certificate is to certify that **Ayush Suryawanshi** has successfully completed the vocational training program in the **Digital Transformation Group (DTG)** at **Bharat Heavy Electricals Limited (BHEL), Bhopal**.

The training program was conducted from **25-05-2023 to 22-06-2023**, and the trainee was assigned to the project of **building the QR Code Generator using Python**.

The trainee demonstrated a strong grasp of Python programming and QR code generation principles. Their attention to detail and problem-solving skills resulted in a robust and customizable QR code generator. Their teamwork and commitment to excellence make them worthy recipients of the completion certificate.

सत्यम कुशवाहा / SATYAM KUSHWAHA
प्रबंधक (आई टी) / Manager (IT)
डिजिटल ट्रांसफॉर्मेशन ग्रुप
Digital Transformation Group
बी.एच.ई.एल., भोपाल / BHEL, Bhopal

Date

Project Guide

Mr. Satyam Kushwaha

Manager

Digital Transformation Group (DTG)

Bharat Heavy Electricals Limited (BHEL)

Bhopal, India

भारत हेवी इलेक्ट्रिकल्स लिमिटेड, भोपाल
(मानव संसाधन विकास केन्द्र)
BHARAT HEAVY ELECTRICALS LTD., BHOPAL
(HUMAN RESOURCE DEVELOPMENT CENTRE)

Sl.No. REG202301023

VT/OT NO. VTEN2023000462

प्रशिक्षण प्रमाण-पत्र
TRAINING CERTIFICATE



प्रमाणित किया जाता है कि श्री / कु.

This is to certify that Shri / Ku. **AYUSH SURYAWANSHI**

Student

..... वर्ष प्रबंधन/इंजीनियरी स्नातक पाठ्यक्रम के छात्र / की छात्रा जिन्हें/

of **..THIRD..** year **..CS/IT ENGINEERING..** Management / Engineering degree course deputed

From **..GURU GHASIDAS VISHWAVIDYALAYA BILASPUR..** द्वारा प्रतिनियुक्त किया गया था.

ने अपना प्रोजेक्ट / व्यावहारिक प्रशिक्षण दिनांक से दिनांक तक हमारे संस्थान में प्राप्त किया.

has undergone Project/Practical (Vacation) training from **..25-May-23..** to **..22-Jun-23..** in our works

दिनांक / Date : **22-Jun-23** स्वागता एस्. सदस्य

स्थान / भोपाल : **22-Jun-23** मानव संसाधन विकास केन्द्र

Place : **BHOPAL** बी.एच.ई.एल.

(प्रशिक्षण समन्वयक/प्रभु-COORDINATOR) (एच ओ डी/HOD) (सील/SEAL)

[Ref:590 FR 511: REV 01]

BACKGROUND

In the digital age, information sharing and accessibility have become paramount. Quick Response (QR) codes have emerged as a versatile and efficient tool to meet these needs. QR codes are two-dimensional barcodes that can store various types of data, including URLs, text, contact information, and more. They can be scanned using smartphones, tablets, or dedicated QR code scanners, instantly retrieving the encoded information. The widespread adoption of smartphones and the ease of scanning QR codes have contributed to their increasing popularity.

The origins of QR codes can be traced back to the automotive industry in Japan. Initially developed by Denso Wave, a subsidiary of Toyota, QR codes were primarily used for tracking vehicle parts during the manufacturing process. However, their potential was soon recognized beyond the automotive sector, and QR codes began to be utilized in various industries and applications.

One of the key advantages of QR codes is their ability to store large amounts of data compared to traditional barcodes. A QR code can hold hundreds of alphanumeric characters, allowing for the encoding of complex information. This makes them highly versatile for a wide range of applications, such as product packaging, marketing campaigns, event ticketing, inventory management, and more.

QR codes offer numerous benefits in terms of convenience and accessibility. With a simple scan using a smartphone camera, users can quickly access websites, download apps, make payments, add contacts, and perform other actions without the need for manual input. This streamlined experience enhances user engagement and eliminates the potential for errors in data entry.

The widespread usage of QR codes in marketing campaigns further exemplifies their value. Businesses can embed QR codes in advertisements, brochures, posters, and even product labels to provide customers with additional information, promotional offers, or interactive experiences. This interactive element adds a new dimension to traditional marketing strategies, enabling businesses to engage with their target audience more effectively.

In summary, QR codes have revolutionized the way information is shared and accessed. Their ability to store diverse data types and the ease of scanning them with smartphones have made them an indispensable tool in various industries. The convenience, versatility, and potential for engagement offered by QR codes make them an attractive choice for individuals and businesses looking to streamline processes, enhance marketing efforts, and provide a seamless user experience.