**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**

"Jnana Sangama", Belgaum - 590014, Karnataka

**Full Stack Web Development**

**PROJECT REPORT**

On

# "SKILL-IT"

Submitted by


**EDGAR ALLAN POE (1BMXXYYZZZZ)**
**SHERLOCK HOLMES (1BMXXYYZZZZ)**
**ALEXANDER GRAHAM BELL (1BMXXYYZZZZ)**
**HERCULE POIROT (1BMXXYYZZZZ)**


Under the Guidance of
**GUIDE NAME**
**Designation**

in partial fulfillment for the award of the degree of

**BACHELOR OF ENGINEERING**

in

**COMPUTER SCIENCE AND ENGINEERING**


## B.M.S. COLLEGE OF ENGINEERING

(Autonomous Institution under VTU)

BENGALURU-560019


2024 - 2025

# B. M. S. College of Engineering

**Bull Temple Road, Bengaluru - 560019**

(Affiliated To Visvesvaraya Technological University, Belgaum)

**Department of Computer Science and Engineering**

## CERTIFICATE

This is to certify that the project work entitled **"SKILL-IT"**, carried out by **EDGAR ALLAN POE (1BMXXYYZZZZ), SHERLOCK HOLMES (1BMXXYYZZZZ), ALEXANDER GRAHAM BELL (1BMXXYYZZZZ), HERCULE POIROT (1BMXXYYZZZZ)**, bonafide students of **B. M. S. College of Engineering**, is in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering of Visvesvaraya Technological University, Belgaum during the academic year 2024 - 2025 and satisfies the academic requirements of the course Full Stack Web Development(23CS3AEFWD) prescribed for the said degree.

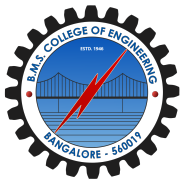
**GUIDE NAME**
Designation

**Dr. Kavitha Sooda**
Professor and Head
Department of CSE

**Dr. Bheemsha Arya**
Principal, BMSCE

| Name of the Examiner | Signature with Date |
|---|---|
| 1. | |
| 2. | |

# B. M. S. College of Engineering
## Department of Computer Science and Engineering




## Declaration

We, **EDGAR ALLAN POE (1BMXXYYZZZZ), SHERLOCK HOLMES (1BMXXYYZZZZ), ALEXANDER GRAHAM BELL (1BMXXYYZZZZ), HERCULE POIROT (1BMXXYYZZZZ)**, students of **3rd Semester, B.E, Department of Computer Science and Engineering, BMS College of Engineering, Bengaluru**, hereby declare that this Full Stack Web Development project entitled **"SKILL-IT"** has been carried out by us under the guidance of **GUIDE NAME**, Designation, Department of CSE, B.M.S College of Engineering, Bangalore, during the Even semester of **2024 - 2025**.

We also declare that, to the best of our knowledge and belief, the work produced here is not a part of any other report by any other students.

Signatures

**EDGAR ALLAN POE (1BMXXYYZZZZ)**
**SHERLOCK HOLMES (1BMXXYYZZZZ)**
**ALEXANDER GRAHAM BELL (1BMXXYYZZZZ)**
**HERCULE POIROT (1BMXXYYZZZZ)**

# ACKNOWLEDGEMENT

Write about people you would acknowledge for their contribution to your project.

# ABSTRACT

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# Chapter 1

# Introduction to Quantum Computing

Quantum computing is an advanced area of computation that relies on the principles of quantum mechanics to process information in fundamentally different ways than classical computers. Traditional computers represent data as binary digits (bits), which can exist in one of two states: 0 or 1. Quantum computers, on the other hand, use quantum bits (qubits), which can exist in multiple states simultaneously due to the phenomena of superposition and entanglement.

This ability allows quantum computers to solve specific types of problems much faster than classical computers. Problems involving large datasets, complex simulations (such as molecular chemistry), optimization, and machine learning could see major improvements in speed and accuracy with the use of quantum algorithms.

As Peter Shor said:

> In the near future, quantum computers may be able to break widely used encryption systems, but they will also create new, far stronger encryption methods.

## 1.1 The Foundation of Quantum Computing

As referenced in Introduction above, Quantum computing is based on the fundamental principles of quantum mechanics, the branch of physics that describes the behavior of particles at the subatomic level. Three key concepts from quantum mechanics form the

foundation of quantum computing:

1. Superposition: A quantum system can exist in a linear combination (or superposition) of multiple states at once. For instance, whereas a classical bit can only be in the state 0 or 1, a qubit can be in a state that is a combination of both 0 and 1. This enables quantum computers to process a vast amount of information in parallel.

2. Entanglement: When two qubits are entangled, their states become interconnected, meaning that changing one qubit will instantly affect the other, regardless of the distance between them. This phenomenon can be used to create highly parallelized computational processes, accelerating problem-solving in quantum algorithms.

3. Quantum Interference: Quantum algorithms make use of interference to amplify the probability of correct answers and cancel out wrong ones. By manipulating the phase of the quantum state, quantum computers enhance the likelihood of achieving the correct solution while eliminating errors. Some random Code `python s = "HI" if s == "HI": print(s)`

**Qubit:** A qubit (short for quantum bit) is the basic unit of information in quantum computing. Unlike a classical bit, which can only represent one of two possible states, 0 or 1, a qubit can represent both 0 and 1 simultaneously due to a property called superposition.

Pandoc supports task lists, using the syntax of GitHub-Flavored Markdown.

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# Chapter 2

# Mathematical Foundation to Quantum Computing

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# Chapter 3

# The Architecture of Quantum Computing

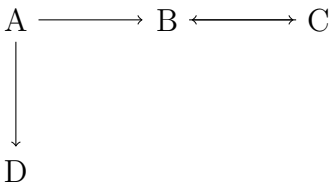


Table 3.1: Caption {#tbl:tabRef}

| ID | Name | Age | Country |
|---|---|---|---|
| 1 | Alice | 24 | USA |
| 2 | Bob | 30 | Canada |
| 3 | Charlie | 22 | UK |
| 4 | David | 28 | Australia |
| 5 | Emma | 35 | Germany |
| 6 | Frank | 27 | France |

$$x^2 + y^2 = c^2$$

Above equation given by [Ein05].

This is a citation to the work of Smith et al. [SD21].

Figure 3.1: My Image

# Bibliography

[Ein05] Albert Einstein. “On the Electrodynamics of Moving Bodies”. In: *Annalen der Physik* 17 (1905), pp. 891–921.

[SD21] John Smith and Jane Doe. “An Example Paper”. In: *Journal of Examples* 42.1 (2021), pp. 12–34.