**BHARATI VIDYAPEETH (DEEMED TO BE UNIVERSITY)**



# DEPARTMENT OF ENGINEERING & TECHNOLOGY OFF CAMPUS, KHARGHAR, NAVI MUMBAI,410210



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|  | **Mini Project Report** | |
| **On**  **Title**  **Subject-: - COMPILER DESIGN**  ***Presented By*** |  |
| **Roll No.** | **Name** | **PRN** |
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# CERTIFICATE

This is to certify that the requirements for the project report entitled ‘TITLE’ have been successfully completed by the following students:

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in partial fulfillment of B.Tech in the Department of CSBS, BVDU DET, during the Academic Year 2024 – 2025.

**Subject In charge**

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# DECLARATION

We declare that this written submission for B.TECH project entitled “TITLE” represent our ideas in our own words and where others' ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any ideas / data / fact / source in our submission. We understand that any violation of the above will cause for disciplinary action by institute and also evoke penal action from the sources which have not been properly cited or from whom prior permission have not been taken when needed.

Project Group Members Signature

Tanashvi Pujari \_\_\_\_\_\_\_\_\_\_

Vivek Maske \_\_\_\_\_\_\_\_\_\_

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# Abstract

In programming, identifiers are key elements used to name variables, functions, classes, and other constructs. Ensuring that these identifiers are valid according to the language's rules is essential for error-free code compilation. This project presents the development of a compiler module designed to verify the validity of identifiers. The module will analyze whether a given identifier adheres to specific syntactical rules, thereby preventing potential errors during the compilation process. This tool not only enhances the reliability of the compiler but also aids developers in writing clean, error-free code from the outset

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**Chapter 1**

# Introduction

Nowadays sorting algorithms are widely used in computer software. For example, if you open file explorer on your PC, you may see files sorted in different ways. Searching in sorted data is more efficient than in not sorted ones. Students of computer science start learning different algorithms in the first year of studies and sorting algorithms are among them. Since I faced the problems of sorting during the course of algorithm design in the first year of my studies, there is an understanding that the visual representation is a vital part of the studying process. During working on the thesis it was very exciting to learn different techniques of sorting algorithms into the depth. The main goal of the thesis was to create a program which would serve as a tool for understanding how most known sorting algorithms work. There was an attempt to make the best possible user experience. The demonstration software is made in a user-friendly and easy-to-use style. To gain maximal benefit from learning you can try each sorting algorithm on your data. The text of the thesis describes principles of the most known sorting algorithms which are demonstrated in the computer program. It might be used as a source for learning algorithms by students. Also, the program might be easily used as a demonstration by lecturers and tutors during classes. Besides, there is programmer documentation and user guide to the provided software. Readers of this text are expected to have some programming experience to know basic data structures such as arrays, lists, trees and understand recursive procedures. Also, knowledge of some simple algorithms and their implementations could be helpful.

# References

[1] Sewar Khalifeh and Amjed A. Al-Mousa. 2021. A Book Recommender System Using Collaborative Filtering Method. In International Conference on Data Science, E-learning and Information Systems 2021 (DATA'21). Association for Computing Machinery, New York, NY, USA, 131–135.