VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI - 590018

Project Report

On

"CAR EMI CALCULATOR ANDROID APP"

A report submitted in partial fulfillment of the requirements for

MOBILE APPLICATION DEVELOPMENT LABORATORY (18AIMP68)

in

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Submitted by

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DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

MOODBIDRI-574225, KARNATAKA

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CERTIFICATE

This is to certify that the Project entitled **"CAR EMI CALCULATOR ANDROID APP"** has been successfully completed by

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in the partial fulfillment for the award of Degree of Bachelor of Engineering in Artificial Intelligence and Machine Learning of the Visvesvaraya Technological University, Belagavi during the year 2023-2024. It is certified that all corrections/suggestions indicated have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of Project Work prescribed for the award of Bachelor of Engineering Degree.

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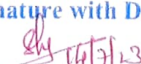**Mr. Shrikanth N G**
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ABSTRACT

The Car EMI Calculator is a Java-based mini project aimed at providing a user-friendly interface to calculate Equated Monthly Installments (EMIs) for car loans. The project focuses on implementing key financial formulas and concepts to help users determine the monthly repayment amount based on the loan amount, interest rate, and loan tenure. The project utilizes the object-oriented programming paradigm and incorporates various Java features such as user input validation, exception handling, and graphical user interface (GUI) development. The graphical interface allows users to input the necessary loan details and receive instant EMI calculations. The project begins with the creation of a user-friendly GUI using Java's Swing library. The GUI includes input fields for loan amount, interest rate, and loan tenure, along with a calculate button to initiate the EMI calculation process. User input validation is implemented to ensure accurate data entry and prevent erroneous calculations. The core functionality of the project involves performing the EMI calculation based on the user's inputs. The necessary financial formulas, including the calculation of interest, principal, and EMI, are implemented using Java programming concepts. The project takes into account factors such as compound interest, loan duration, and monthly installment deductions to accurately calculate the EMI.

Additionally, the project includes exception handling mechanisms to handle potential errors or invalid inputs entered by the user. Error messages are displayed to guide users in correcting their inputs, ensuring a smooth and error-free calculation process. The Car EMI Calculator mini project serves as a practical demonstration of fundamental financial concepts and Java programming techniques. It provides an interactive and efficient tool for individuals seeking to estimate their monthly car loan repayments. By utilizing Java's object-oriented approach, user input validation, and GUI development, the project offers a valuable learning experience for aspiring Java developers and finance enthusiasts.

Keywords: Car EMI Calculator, Java, mini project, Equated Monthly Installments, GUI, object-oriented programming, user input validation, exception handling.