CRYPTO CURRENCY MARKET PRICE PREDICTION USING DATA SCIENCE TECHNIQUE

A Project Report

Submitted by

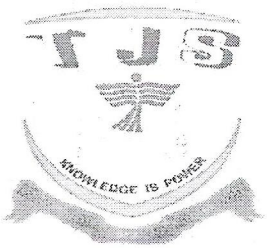
112818104016	K.B.GOWRI SANKAR
112818104034	P.MARIMUTHU
112818104035	S.MOSES STEPHEN ARULRAJ

In partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING



T.J.S ENGINEERING COLLEGE

PERUVOYAL (NEAR KAVARAIPETTAI)

GUMMIDIPOONDI TALUK

THIRUVALLUR DISTRICT – 601206

Approved by AICTE and Affiliated to Anna University, Chennai

ANNA UNIVERSITY: CHENNAI 600 025

JUNE 2022

PRINCIPAL
T.J.S. ENGINEERING COLLEGE
Peruvoyal, Kavaraipettai,
Gummidipoondi Taluk,
Thiruvallur Dist - 601 206.

ABSTRACT

Crypto currency is a digital currency wherein the coin ownership records are stored in a ledger existing in a form of a computerized database using strong cryptography to secure transaction records and to control the creation of additional coins, and to verify the transfer of coin ownership. Nowadays crypto currency are used in large scale and there is a sudden rise or decrease in their share and it is difficult to predict the price of the crypto currency. In this project a machine learning model is built to predict the price of crypto currency. The application of data science process is applied for getting the better model for predicting the outcome. Variable identification and data understanding is the main process in building the successful model. Different machine learning algorithms are applied on the pre-processed data and the accuracy are compared to see which algorithm performed better other performance metrics like precision, recall, score are also taken in consideration for evaluating the model. The machine learning model is used to predict the crypto currency outcome.

GE8151 PROBLEM SOLVING AND PYTHON PROGRAMMING

L T P C
3 0 0 3

OBJECTIVES:

- To know the basics of algorithmic problem solving
- To read and write simple Python programs.
- To develop Python programs with conditionals and loops.
- To define Python functions and call them.
- To use Python data structures -- lists, tuples, dictionaries.
- To do input/output with files in Python.

UNIT I ALGORITHMIC PROBLEM SOLVING 9

Algorithms, building blocks of algorithms (statements, state, control flow, functions), notation (pseudo code, flow chart, programming language), algorithmic problem solving, simple strategies for developing algorithms (iteration, recursion). Illustrative problems: find minimum in a list, insert acard in a list of sorted cards, guess an integer number in a range, Towers of Hanoi.

UNIT II DATA, EXPRESSIONS, STATEMENTS 9

Python interpreter and interactive mode; values and types: int, float, boolean, string, and list; variables, expressions, statements, tuple assignment, precedence of operators, comments; modules and functions, function definition and use, flow of execution, parameters and arguments; Illustrative programs: exchange the values of two variables, circulate the values of n variables, distance between two points.

UNIT III CONTROL FLOW, FUNCTIONS 9

Conditionals: Boolean values and operators, conditional (if), alternative (if-else), chained conditional (if-elif-else); Iteration: state, while, for, break, continue, pass; Fruitful functions: return values, parameters, local and global scope, function composition, recursion; Strings: string slices, immutability, string functions and methods, string module; Lists as arrays. Illustrative programs: square root, gcd, exponentiation, sum an array of numbers, linear search, binary search.

UNIT IV LISTS, TUPLES, DICTIONARIES 9

Lists: list operations, list slices, list methods, list loop, mutability, aliasing, cloning lists, list parameters; Tuples: tuple assignment, tuple as return value; Dictionaries: operations and methods; advanced list processing - list comprehension; Illustrative programs: selection sort,insertion sort, mergesort, histogram.

UNIT V FILES, MODULES, PACKAGES 9

Files and exception: text files, reading and writing files, format operator; command line arguments, errors and exceptions, handling exceptions, modules, packages; Illustrative programs: word count,copy file.

TOTAL: 45 PERIODS

OUTCOMES:

Upon completion of the course, students will be able to

- Develop algorithmic solutions to simple computational problems
- Read, write, execute by hand simple Python programs.

PRINCIPAL
T.J.S. ENGINEERING COLLEGE
Peruvoyal, Kavaraipettai,
Gummidipoondi Taluk

- Structure simple Python programs for solving problems.
- Decompose a Python program into functions.
- Represent compound data using Python lists, tuples, dictionaries.
- Read and write data from/to files in Python Programs.

TEXT BOOKS:

3. Allen B. Downey, ``Think Python: How to Think Like a Computer Scientist", 2nd edition, Updated for Python 3, Shroff/O'Reilly Publishers, 2016
4. Guido van Rossum and Fred L. Drake Jr, ¯An Introduction to Python - Revised andupdated for Python 3.2, Network Theory Ltd., 2011.

T.J.S.E.C.

PRINCIPAL
T.J.S. ENGINEERING COLLEGE
Peruvoyal, Kavaraipettai,
Gummidipoondi Taluk,
Thiruvallur Dist - 601 206.