Project Report

# 1.Introduction

**shamkumar\_binance\_bot** is a Python-based automated trading bot designed to facilitate cryptocurrency trading on the

Binance exchange. The project aims to provide users and developers with robust automation tools for executing various

trading strategies, featuring input validation, logging, and mock trading capabilities for safe experimentation.

# 2.Features

**OCO (One Cancels Other) Orders:**

Places both take-profit and stop-limit orders simultaneously; when one order is filled, the other is automatically cancelled.

src/advanced/

:

Contains the main strategy scripts

(

oco.py

,

twap.py

, etc.).

src/logger.py

:

Sets up logging to a persistent log file.

src/input\_validator.py

:

Verifies the correctness of user inputs.

src/binance\_client.py

:

Implements a mock Binance client for simulated trades.

**TWAP (Time-Weighted Average Price) Strategy:**

Splits a large order into smaller slices and executes them at regular intervals to minimize market impact.

**Stop-Limit Orders:**

Places orders that trigger at a specific stop price and execute at a defined limit price.

**Input Validation:**

Ensures trading parameters are correct before executing any trade.

**Logging:**

All trading activities and errors are recorded in bot.log for auditing and debugging.

**Mock Trading:**

Project Structure

# Usage Examples

**OCO Order Example:**

python advanced/oco.py BTCUSDT SELL 0.01 41500 40500 40400

Places a sell OCO order for BTCUSDT with specified quantities and prices.

**TWAP Strategy Example:**

python advanced/twap.py BTCUSDT BUY 0.05 5 10

Splits a buy order of 0.05 BTC into 5 slices, each executed every 10 seconds.

# Logging and Testing

After running main scripts, inspect

bot.log

to verify correct logging.

Test with both valid and invalid parameters to confirm input validation works as expected.

Use mock trading to safely experiment with strategies.

# Conclusion

**binance\_bot** offers a modular, user-friendly solution for automating Binance trading strategies. With its

robust input validation, comprehensive logging, and mock trading capabilities, it is well-suited for traders, developers, and

learners seeking to explore algorithmic trading in a safe, controlled environment.

*Prepared by: shyam007-srec*

*Date: 2025-08-08*