

FEASIBILITY ANALYSIS

Presented by Team AskMe

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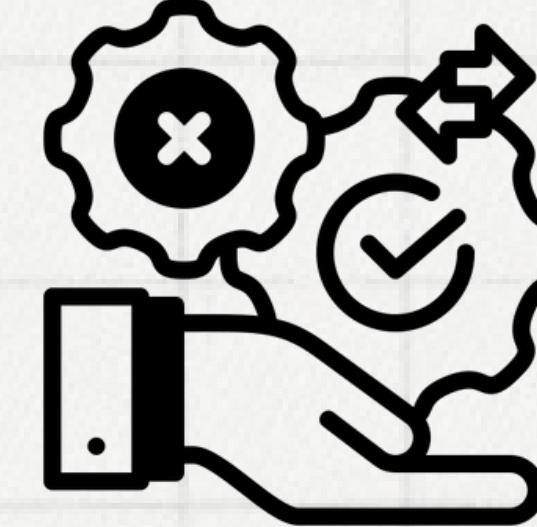
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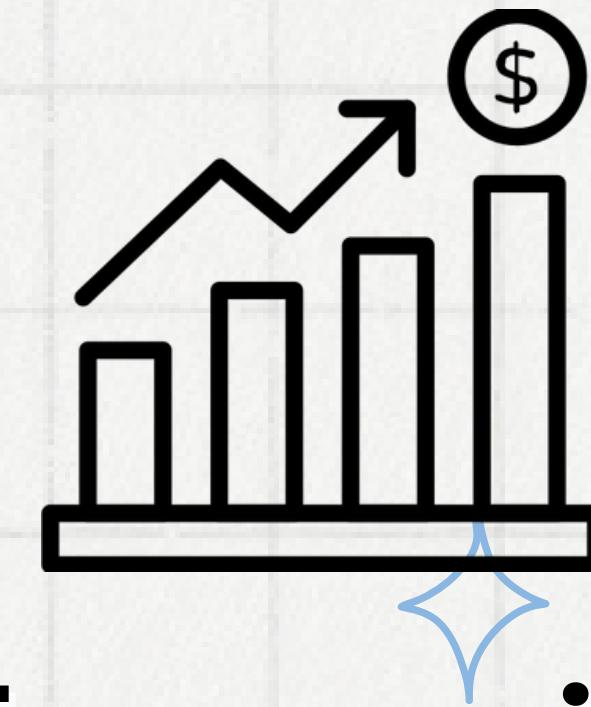
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**Technical
Feasibility**



**Operational
Feasibility**



**Economic
Feasibility**

PROJECT OVERVIEW

Next generation coding platform convenient for all type of coders as well as new learners. Comes with smart upsolve method, live contests, analysis curves and motivating reward system

01

01

Smart Upsolving

Cutting-edge smart upsolving system with intelligent problem recommendations based on users' submission history

02

Performance Tracker

Users can monitor their progress, identify strengths and weaknesses, and make informed decision for targeted improvement

03

Coder's Calendar

A meticulously curated contest schedule, featuring both past and upcoming events, facilitates user planning and consistent engagement in competitive programming.

TECHNICAL FEASIBILITY

Compatibility

Current technology is sufficient to complete the project

Practicality

Considering user demand and engagement this system can be used for several purposes

Resource Availability

Enough technological resources are available for completion of this project

Executability

Proficient developer are working on this project

TECHNICAL FEASIBILITY

03

1. Software :

- **Backend Design :** Express.js (Node.js) for building the backend infrastructure
- **Frontend Design :** Utilize modern JavaScript frameworks/libraries such as Angular, or Bootstrap for user interface
- **Database Design :** Robust database management system like PostgreSQL
- **Version control & Collaboration :** Popular Version control tools like Github
- **API Integration :** APIs provided by online judges. Also, merging with compiler and interpreter APIs in various programming languages, ensuring flexibility of language

2. Hardware :

- Problem hosting and solution database **Servers** with high performance CPU
- Adequate **Storage and backup** system node balancing **Network-Attached Storage devices(NAS)**.

TECHNICAL FEASIBILITY

Complexity :

Real-Time Code Execution: Implementing a feature that allows users to execute and test their code in real-time presents technical challenges.

Content Management : Developing this system with version control and content categorization for coding problems, solutions introduces complexity to the project.

Risks :

Security Vulnerabilities : Failure to implement robust security measures could lead to compromised user data and reputational damage.

Load Balance : Maintaining huge number of response from multiple user at contest time can be challenging.

OPERATIONAL FEASIBILITY

Adequate throughput and response time :

- **Optimized Code Execution:** We will implement optimized code execution processes to minimize latency and maximize throughput.
- **Scalable Infrastructure:** The platform will be built on a scalable infrastructure that can dynamically allocate resources based on demand.
- **Monitoring and Performance Tuning:** Continuous monitoring of system performance ensures that the system maintains adequate throughput and response time levels.

Our system of operation is engineered to provide unparalleled levels of throughput and response time, setting a new standard for online coding platforms.

Ease of USE

The proposed system will offer a user-friendly interface, intuitive navigation, and streamlined workflows, resulting in an improved overall user experience

Problem Sets

Users will have access to a diverse range of coding problems covering various difficulty levels

Improvements Over Proposed System

Performance Analytics

The system will offer performance analytics and progress tracking tools based on several parameters.

Reward System

Recognition strategies to motivate users through tangible rewards or achievements such as promo codes, merchandise, etc.

ECONOMIC FEASIBILITY

TANGIBLE COST AND BENEFITS

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CRITERIA	ESTIMATED BENEFITS(YEARLY)
PROJECT DEVELOPMENT (DESIGNING, CODING, TESTING, DEBUGGING)	FREE OF COST (ONLY MANPOWER REQUIRED)
SOFTWARE LICENSE, CLOUD SERVER AND HOSTING	BDT -8500
PLATFORM RESEARCH, ANALYSIS AND EXPERIMENTS	BDT -6000
REWARDS AND MERCH MAINTENANCE	BDT -7000
PROMOTIONAL ACTIVITIES AND MARKETING	BDT -5000
IT INFRASTRUCTURE	BDT -8000
OPERATIONS OVERHEAD	BDT -5000
ADVERTISEMENT REVENUE	BDT 15000

ECONOMIC FEASIBILITY

INTANGIBLE COST AND BENEFITS

08

CRITERIA	ESTIMATED COSTS(YEARLY)
DEVELOPMENT TIME AND TOTAL WORKHOURS	10 HOURS PER MEMBER PER WEEK. IN TOTAL 300-320 HOURS
USER ADOPTION CHALLENGES	SIMPLE USING, EASY AVAILABILITY; SKEPTICISM OF USER CHOICE
MAINTENANCE OVERHEAD	TECHNICAL ISSUES ADDRESSING AND FREQUENT RESPONSE TIME UPDATES
LEARNING CURVE	LESS KNOWLEDGE PRE-REQUISITE
CRITERIA	ESTIMATED BENEFITS(YEARLY)
COMMUNITY BUILDING AND ENGAGEMENT	STUDENTS, EDUCATORS, NEW LEARNERS BLENDING
BRAND REPUTATION	ENHANCED REPUTATION WITH POSITIVE FEEDBACK
EDUCATIONAL IMPACT	PROFOUND IMPACT ON COMPUTER SCIENCE EDUCATION
SOCIO-ECONOMIC IMPACT	INNOVATION SHOWCASING AND IDEA GENERATION

Cost Analysis

Total one-time cost	BDT 43,500
Total recurring costs (per year)	BDT 29000
Total budget for the first year	BDT 72,500

ROI Analysis

1 Year	Total cost	BDT 72,500
	Total benefit	BDT 25,500
	ROI	-0.65 or 65%
5 Year	Total cost	BDT 72,500
	Total benefit	BDT 85,000
	ROI	0.17 or 17%
10 Year	Total cost	BDT 72,500
	Total benefit	BDT 1,70,000
	ROI	1.34 or 134%

Thank you !!