

A Project Report on
XX
XX
XXXXXXXXXXXXXXXXXXXX
XXXXXXX
in
COMPUTER SCIENCE & ENGINEERING

CANDIDATE'S DECLARATION

CERTIFICATE

ABSTRACT

ACKNOWLEDGEMENT

TABLE OF CONTENTS

	Page No.
Candidate's Declaration	2
Certificate	3
Abstract	4
Acknowledgement	5
Contents :	
CHAPTER 1: INTRODUCTION	9 – 14
1.1 Overview	9
1.2 Motivation	9
1.3 Statement of the problem	8
1.4 Objectives	8
1.5 Scope of the study	9
1.6 Feasibility Study	9
1.6.1 Financial Feasibility	10
1.6.2 Technical Feasibility	10
1.6.3 Resources Feasibility	12
1.6.4 Risk Feasibility	13
CHAPTER 2: LITERATURE REVIEW	15 – 22
2.1 Background	15
2.2 Historical Overview	16
2.2.1 Extractive Summarization	17
2.2.2 Abstractive Summarization	17
2.3 Previous Work in NLP-based Summarization	18
2.4 Tools and Techniques Used in Text Summarization	19
2.5 Challenges and Issues in Summarization	22

CHAPTER 3: REQUIREMENTS, ANALYSIS, AND DESIGN	23 – 31
3.1 Introduction	23
3.2 Requirements Specifications	24
3.2.1 Functional Requirements	25
3.2.2 Non-Functional Requirements	26
3.2.3 System Requirements	27
3.3 Algorithm	28
3.4 System Design	29
3.4.1 User Interface Design	30
3.5 Real Time Communication Design	31
2.6 Security Design	31
CHAPTER 4: METHODOLOGY	32– 37
4.1 Text Preprocessing	33
4.1.1 Tokenization	34
4.1.2 Stopword Removal	34
4.1.3 Lemmatization and Stemming	35
4.2 Feature Extraction	36
4.2.1 TF-IDF	36
4.3 Summarization Techniques	36
4.4 Model Selection and Training	36
4.5 Evaluation Metrics	37
CHAPTER 5: IMPLEMENTATION AND TESTING	38 - 41
5.1 Development Environment and Tools	38
5.2 Implementation of Summarization Model	38
5.3 System Integration	39
5.4 Testing Strategy	40
5.5 Evaluation of the Summarizer	40
5.5.1 ROUGE Evaluation	41

5.5.2 Performance Metrics	41
CHAPTER 6 : RESULTS AND ANALYSIS	42 - 48
6.1 Results of Summarization Model	42
6.2 Performance Analysis	43
6.3 Comparison of Extractive vs. Abstractive Summarization	44
6.4 Limitations and Challenges Faced	45
CHAPTER 7 : CONCLUSION AND FUTURE WORK	49- 50
7.1 Conclusion of the Project	49
7.2 Key Findings and Contributions	49
7.3 Future Scope and Improvements	50
7.4 Potential Applications	50
REFERENCES	51