# TABLE OF CONTENT

|  |  |  |
| --- | --- | --- |
| **CHAPTER NO** | **TITLE** | **PAGE NO** |
| **I** | **LIST OF FIGURES** | **iii** |
| **II** | **LIST OF TABLES** | **iv** |
| **III** | **LIST OF ABBREVIATIONS** | **v** |
| **IV** | **ABSTRACT** | **vi** |
| **1** | **INTRODUCTION** | **1** |
| **2** | **LITERATURE SURVEY** | **4** |
| **3** | **SYSTEM DESIGN** | **6** |
|  | 3.1 Proposed System  3.1.1 Practical Scoring Function  3.1.1.1 Term Frequency  3.1.2 Inverted Index Algorithm  3.1.2.1 Inverse Document Frequency  3.1.2.2 Coordination  3.1.2.3 Field Length Normalization  3.1.2.4 Query normalization  3.1.2.5 Index Boost  3.1.2.6 Query Boost | 6  6  7  7  7  8  8  8  9  9 |
|  | 3.2 Architecture  3.3Working Principle  3.3.1 How Elasticsearch Routing Works  3.3.2 Implementing Custom Routing  3.3.3 Schema with Routing Enforcement  3.3.4 Sample Data for Microblagh  3.3.5 Performance Concerns  3.3.6 Clustering and Index Internals  3.3.7 Index Internals  3.3.8 Index Durability  3.3.9 Write Durability  3.3.10 Updating a Document With An Explicit Consistency Level | 9  10  10  11  12  13  14  14  14  16  16  17 |
| 4 | IMPLEMENTATION DETAILS AND  RESULTS | 19 |
|  | 4.1 Setting up Elasticsearch | 19 |
|  | 4.2 Ingesting Data Using Logstash  4.2.1 Inputs  4.2.2 Filters  4.2.3 Output | 20  20  21  21 |
|  | 4.3 Visualizing Using kibana  4.3.1 Free-Text Search  4.3.2 Field-Level Search  4.3.3 Logical Statements  4.3.4 Kibana Special Characters  4.3.5 Proximity searches | 21  22  23  23  24  24 |
|  | 4.4 System Specification  4.4.1 Hardware Requirements  4.4.1 Hardware Requirements | 25  25  25 |
|  | 4.5 Results  4.5.1 Index Management and Index Patterns  4.5.2 Creating Visualizations  4.5.3 Creating Dashboards | 26  27  28  28 |
| 5 | CONCLUSION |  |
|  | REFERENCE | 33 |

**LIST OF FIGURES**

|  |  |  |
| --- | --- | --- |
| **FIGURE NO** | **FIGURE NAME** | **PAGE NO** |
| 3.2 | Elastic stack Architecture | 10 |
| 3.3.9 | Write Durability | 16 |
| 4.1 | Proximity searches | 26 |
| 4.2 | Index Management | 27 |
| 4.3 | Combining Visualization | 29 |
| 4.4 | Creating Dashboards | 30 |
| 4.5 | Timelion Series | 31 |

**ABSTRACT**

Big data is a new driver of the world economic and societal changes. The world’s

data collection is reaching a tipping point for major technological changes that can

bring new ways in decision making, managing our health, cities, finance and

education. While the data complexities are increasing including data’s volume,

variety, velocity and veracity, the real impact hinges on our ability to uncover the

`value’ in the data through Big Data Analytics technologies. The Goal of the project is

based on real time monitoring of applications combined together .It is done using

three open source tools (elastic search, logstash and kibana ). Applications used for

customer relationship management (vtiger), business intelligence ,

accounts (TALLY) and telecommunication(vicidial) can be integrated and visualized

using elastic stack.The changes applied to all these domain can be viewed using a

single application**.**