System Architecture

Code guide System provides the user with multiple of answers to the questions that may struggle with him for a lot of time ,also user can sign up and post his question if he couldn’t find an answer to his question , also he can communicate with a specialist to help him in his problem ,or learn a group of various languages like : C ,C++, Python , Java , etc……….

This system consists of the following modules:

[1] Storage

[2] Data Processing

[3] Data Analytics

[4] Indexing

[5] General User Area

[6] User Area

[7] Specialists Area

[8] Questions Area

[9] Achievements

[10] Security

[11] Groups Area

[12] System Administration Area

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| Storage |

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| Data processing |

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| Data analytics |

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| Indexing |

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| security |

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| Groups Area |

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| Specialists  Area |

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| User  Area |

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| General User  Area |

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| Questions Area |

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| System Administration Area |

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| Achievements |

[1] Storage

CodeGuide uses different types of storages :

. core storage for users’ interactions.

. system storage for system configuration and user information .

. indexing storage to support text search engines.

. core storage for questions and answers.

Core Storage uses “MariaDB” is an open source relational structured database management system (DBMS) that is a compatible drop-in replacement for the widely used MySQL database technology,Structured data has the advantage of being easily entered, stored, queried and analyzed. At one time, because of the high cost and performance limitations of storage, memory and processing, relational databases and spreadsheets using structured data were the only way to effectively manage data**.**

Archive storage uses JSON data format stored directly over distributed storage. JSON allow flexible

access of data attributes. Distributed storage allow fast access of data items and offer expandable

storage. Data replication is configured to minimum which full data availability and data recovery needs

of archiving information.

System storage uses traditional structured database which provide better queries and data processing

over structured contents.

[2]Data Processing

Data processing module is responsible on providing all data related services like data modeling and

correction, data transformation, data classifier and multimedia processing.

Data transformation is required to allow import and export of different data format. The system

supports common data formats supported by common data processors applications.

Data is processed & analyzed before merging it to the database .

Sending & receiving data is done in Json encoding & ajax.

If the data(Answers) didn’t satisfy our user we will direct him to “stackoverflow.com”.

Data classifier is required to classify the contents which is important to avoid non-appropriate material.

The classifier uses information retrieved by data modeling services.

[3]Data Analytics

Our database is built incrementally according to user interaction , and data is analyzed into categories according to different languages ,so we need to make data analytics to help the user access the site faster and safer.

Similarity analysis to determine similar questions , and help in searching data for questions. This is important to avoid repeated database.

Security analysis to avoid corruption of database, as the data is analyzed before forwarding to the database.

Security for user profile to avoid any outsider to show its content.

[4]Indexing

This module is responsible on indexing textual contents to allow internal full text search queries. Full

text search is used by final users to find certain contents. Also, it used by other modules like data

processing to locate contents in a fixed time regardless the overall contents size.

[5]General User Area

This module provides user with main system activities like searching about questions generally or for a specific language, also there is questions in all languages or it can be in specific language and it will be ordered in the most recent , our offers of online courses will be shown to him , and about as section.

The general user can’t make posts or write comments on other’s questions or create & join groups with others or communicate with specialists without sign up and log in.