Stone Identification App
Software Requirements Specification

Genevieve Okon (okong), Sydney Lieng(liengsn),
Niko Savas(savasn), Nick Lago(lagond),
Eric Le Fort(leforte)

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1 Architectural Design

This system will implement a blackboard architecture

1.1 System Architecture

There will be a series of experts that will post the results of their findings to the forum. This forum will be used to consolidate the results. The best rock or rocks will be picked according to how many experts say they are a potential match and then showed to the user.

This blackboard architecture model was originally designed as a way to handle complex, ill-defined problems, where the solution is obtained using the sum of its parts. This model is the best choice for this task since it is designed to handle multiple sources of data and determine its results based off those streams.

The following diagram illustrates the proposed architecture for this system:
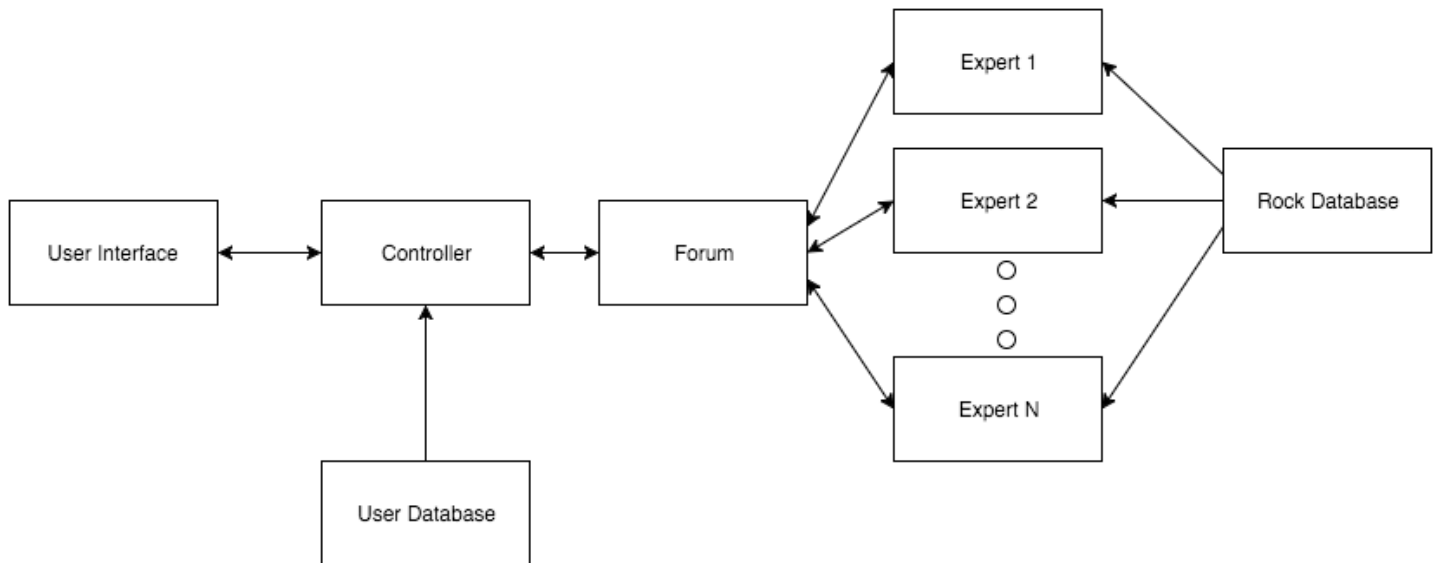
1.2 Subsystems

Expert - The experts will take in a criteria such as colour, texture or hardness and return a list of rocks that match that criteria.

Forum - The forum will receive the lists generated by each of the experts and retain those that are common to all lists.

Interface - The interface will be used to provide information to, and receive commands from, the user. This system will also

Rock Database - The database will be used to store essential data as well as providing tools to access that data.

User Information Database - The database will be used to store information pertaining to the user as well as providing tools to access that data.

Control - The control will grab data from the forum, clear data on the forum and alter what the forum is asking for.