BUILDING DATABASES OF MATHEMATICAL OBJECTS IN SAGEMATH (PYTHON)

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RESEARCH METHODOLOGY

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0.1 INTRODUCTION

A Mathematical Objects Database can be like a museum with all of best mathematical specimens is an intricate catalog and the connections between them. SageMath is a free open-source mathematics software system licensed under the General Public License. It builds on top of many existing open-source accessing a combined power through a common Python based language.

0.2 BACKGROUND ABOUT THE PROBLEM

0.3 PROBLEM STATEMENT

Due to an increased large-scale cloud computing which is one of the ways to provide sophisticated web interfaces that allow both experts and amateur to easily navigate their contents, there is a problem of uncharted mathematical terrain which requires online resources that provides detailed maps for mathematics.

0.4 OBJECTIVES

0.4.1 Main Objective

To build a Mathematical Objects database that provides detailed maps for mathematics in computers both locally and remotely.

0.4.2 Specific Objectives

To use the necessary methodology to carry out research and test the database.
To give students access to mathematics objects through computers and other network devices available.

0.5 METHODOLOGY

We shall get data from sources like text books and implement most of the infinite families of graphs listed there in the open-source software Sagemath, as well as provided constructions of the sporadic cases, to obtain a graph for each set of parameters with known examples.

0.6 SCOPE

0.6.1 Geographical Scope

0.6.2 Functional Scope

0.6.3 Durational Scope

0.7 SIGNIFICANCE

0.8 RECCOMENDATION AND CONCLUSION