

# THE IMPLEMENTATION OF REPRESENTATION STATE TRANSFER (REST) ARCHITECTURE ACADEMIC INFORMATION SYSTEM INTEGRATED IN PANDANARAN ISLAMIC SENIOR HIGH SCHOOL

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*Abstract - In the rapid development of technology and the increasing speed of information flow due to globalization, making the role of information is vital and crucial to an educational institution. Institutions of Sunan Pandanaran implement policies of separate education system among male students with female students. This triggered a few problems, especially in the Senior high school of Sunan Pandanaran where researched by the author. The focus of the research is how to implement the architecture of Representational State Transfer (REST) on the integrated system academic information between two separate data server so that student academic data can be served easily from two different servers. Through the system resulting from this research, researchers offered easy access to student academic data that can then be recycled by the user into a useful information.*

*The research methodology where used in this research is system development. The steps begin with a preliminary study research, data collection, design models, identifying system requirements and system development methods.*

*At the end, this research produced a integrated academic system information between male school servers with a female school server where implemented using Representational State Transfer architecture. So that student academic data can be presented either to the user in order to be recycled into useful information.*

**Keywords:** *Representational State Transfer, system of academic information, RESTfull, Client Server, Web Services.*





d. Desain Antarmuka

- Visitors

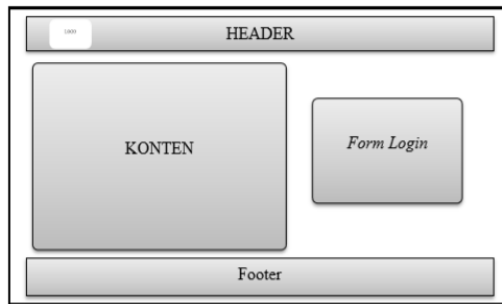


Figure 3. Display to visitors

Visitor display with registration format then content

- User

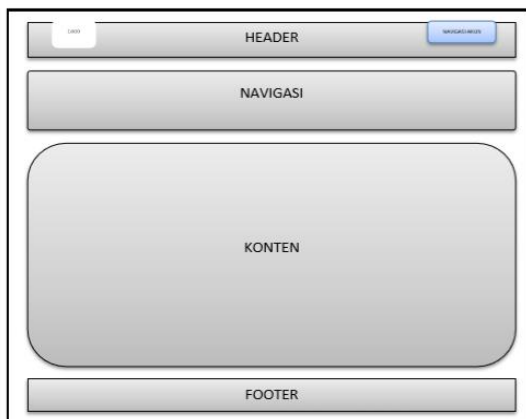


Figure 4. Display to user

-To display the user's order starting from

e. Data Management System

Database Management System (DBMS) used in this research is MySQL. The reason why it's used is because MySQL is one free database and can be easily used and learnt, Moreover, MySQL can run faster.

There are twenty four tables that used for each academic information system server, they are: tabel absen\_guru, tabel absen\_siswa, tabel keys, tabel komunitas\_kelas, tabel kurikulum, tabel level, tabel menu, tabel nilai\_ekstrakurikuler, tabel nilai\_kegiatan, tabel nilai\_pengamatan, tabel nilai\_tugas, tabel nilai\_uas, tabel nilai\_ulangan, tabel nilai\_uts, tabel prestasi, tabel ptk, tabel ptk\_pelatihan, tabel ptk\_pondidikan, tabel ptk\_sertifikasi, tabel siswa, tabel thn\_ajaran, tabel tkelas, tabel sarana\_kelas, tabel user, tabel user\_keys.

CONCLUSION

The last phase of the research is testing the system. On this phase, the researchers/ the writers are testing the system, using black box method . Black box technique is a

testing method that focuses on functional system which have built and noticed the result of the system, whether it runs as expected or not.

The system testing is done by using beta test techniqu. Beta test technique testing is a testing which done by users by accessing the application through local computer (local host), then the users fill the questionnaire form.

Result of the testing based on the thesis, showed that most of the users stated that functional is well-performed. Meanwhile, in interface system testing, the result data showed 98,3% stated strongly agree with interface system, 5,3% stated agree, 2,7% stated disagree, 1,3% stated strongly disagree. So it can be conclude that interface system has very well performance.

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