Ottoman Ulema in a Digital World

Sabancı Üniversitesi
FACULTY OF ENGINEERING AND NATURAL SCIENCES

PURE

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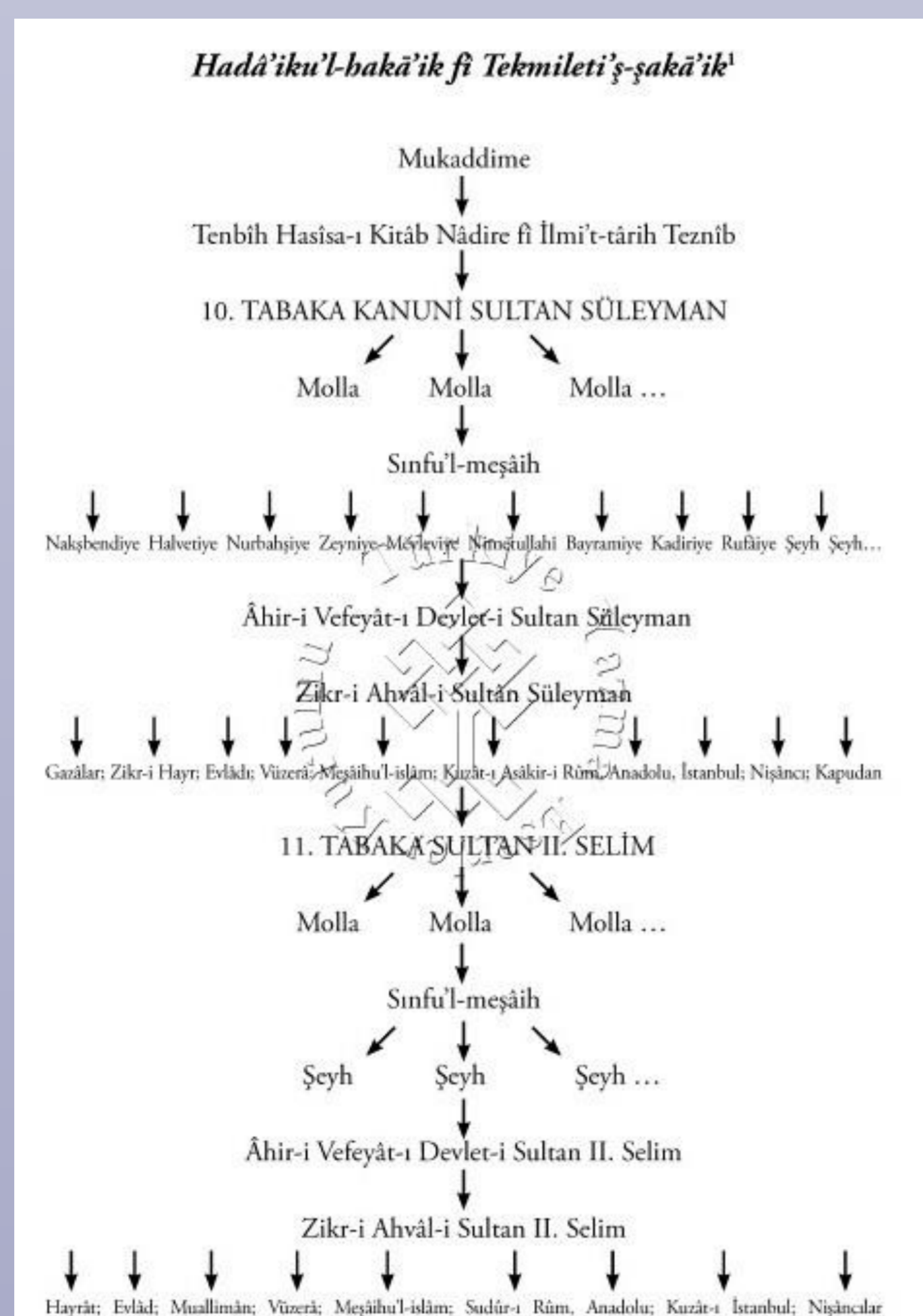## Faculty Member(s)

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ABSTRACT

Retrieved from
https://pure.sabanciuniv.edu/project/156/social-network-analysis-early-modern-ottoman-ulema

This project aims to translate the biographies of the Ottoman Ulema into modern Turkish, collect the comprehensive information that can bring light the period's network and develop a software based tool that is based on these biographical data. These recorded biographies include information about these historical characters' origins, carrier paths, family ties, educational background etc, which was belong to people who lived from the era of Kanuni until the era of IV. Murat, were categorized according to rulers of the period in a book called "Hadaiku'l-Hakaik" by Atai. In this Project, the collection of 1133 biographies was scrutinised, the relevant and important information were extracted and translated into modern Turkish to make it more accessible. The software based tool that is constructed in this Project, consists of a database and a website which are linked with each other. The information that is extracted from the biographies transferred to database throughout the webform that is included in website. In addition to webform, analysis part of the platform allows to search with different filters to the researchers and reveal the social network of that time period. Consequently, historians who conduct their research on social network analysis will be able to transfer, arrange, examine and visualize the data with the help of this tool.

OBJECTIVES

o Collection of biographical information of Ottoman Ulema from Hadaiku'l-Hakaik
o Translation of these biographies' inconvenient language into modern Turkish to make these biographies accessible
o Creation of a software based tool for classification and visualization of huge amount of data
o Revealing the social network analysis of Ottoman Ulema
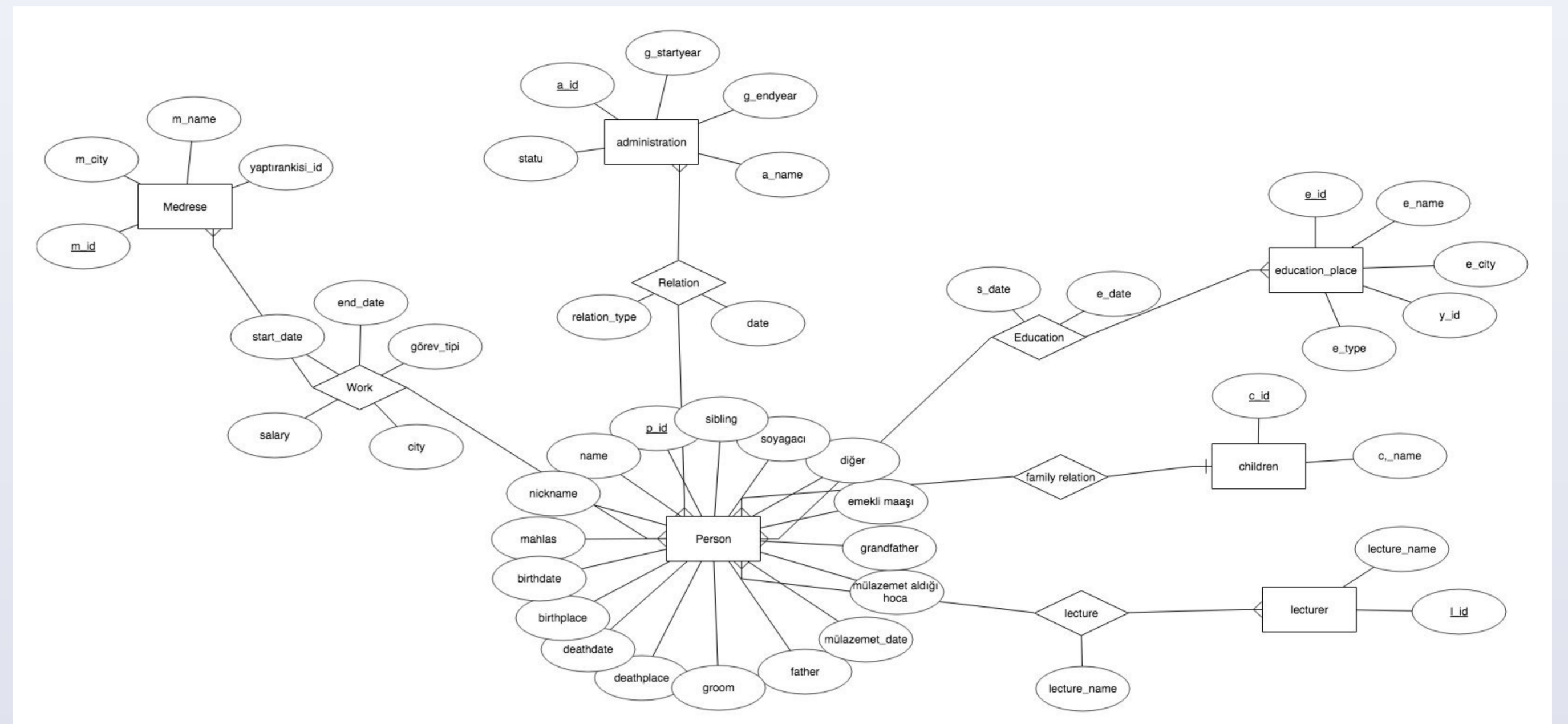
DEVELOPMENTAL STAGES of HISTORICAL STUDIES

Demonstration of Ottoman Ulema Layers

Nev`izâde Atâyî, Hadâiku'l-Hakâik fî Tekmileti'ş-Şakayık, İstanbul 1989.

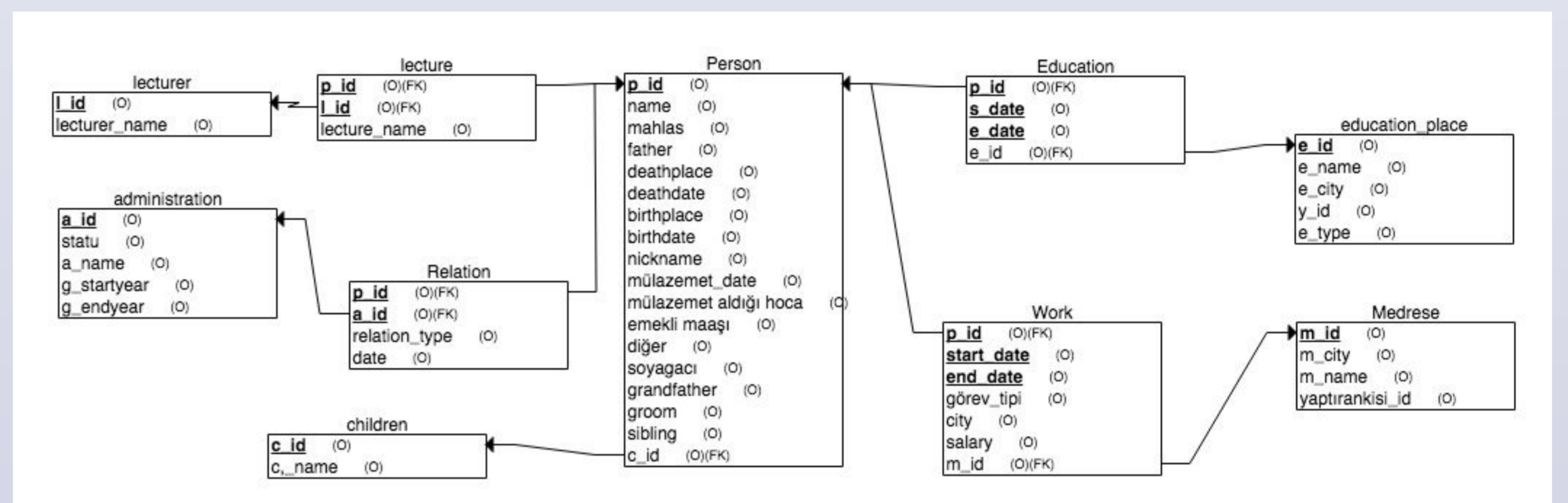*The historical aspect of the Project consist of four main parts:*

o Extraction of all relevant information to store the data in software based tool and reveal social network

o Translation of biographies to Turkish

o Analysis and optimisation of data to make the data entry more functional and easier

o Data input to the database throughout the webform

DEVELOPMENTAL STAGES of COMPUTER SCIENCE STUDIES

ER Diagram

Relational Schema

The computer science aspect of the Project consist of four main parts:

o **Developing and enlarging a database based on the biographical information of historical characters to collect and use the data in efficient way**

• As a first step, for the development of database, initially ER diagram was created
• Relational schema which is a visual representation of database was created based on the ER diagram
• SQL codes were written to construct the database

o **Creating a webform which allows to transfer the data that has extracted from the biographies to the database**

• As a second step, database was implemented to web while creating the web form
• The implementation has done with using PHP
• For the representation of user interface, HTML was used
• For the design part of the web form, CSS was used

o **Constructing a website which is connected with that database to enter in order to analyse and search multiple datasets using different algorithms**
o **Constructing a web server to make this website reachable on global network**

CONCLUSIONS

o Biographies had translated from inconvenient language into modern Turkish
o Biographies had read in debth
o All relevant information had extracted from the book
o For the most comprehensive database to store all kind of information, the ER diagram which is detailed model of database was drawn
o Based on this ER diagram, Relational schema was created to demonstrate the database
o Database had constructed with using mysqli which is a software language for the creation of database
o Webform, which is an user interface that allows to data input and transfer these entries to the database, had constructed with using CSS, HTML and PHP
o The data input was started based on the collection of the extracted information from the book throughout the webform

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