Kevin Lopez Sepulveda

09/23/24

CS579

Project 1 part 1

A diagram of a flowchart

Description automatically generated

Entity Types

|  |
| --- |
| Attributes |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Description | Name | Description | Multivalued | Derived |
| MS Degrees | Overview of degree | Degree code{k}  Degree name  Degree desc. | Text about degree | N  N  N | N  N  N |
| Courses | Overview of courses | Core Courses list  Elective Courses list  Course ID{K} | A list of core courses per degree  A list of elective courses per degree | N  N  N  N | N  N  N  N |
| Student |  | Student ID{K}  Name  Email Address  Non Degree option |  | N  Y  N  N | N  N  N  N |
| Transcript | History of courses | Grade  Semester  Year |  | N  N  N | Y  N  N |
| Faculty | List of People working | Faculty ID{K}  Name  Email Address |  | N  N  N | N  N  N |
| Office | Where faculty work | Building Name  Room Number  Time for office hours |  | N  N  N | N  N  N |

Relationship Types

|  |
| --- |
| Participating entity types |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Description | Name | Structural Constraint | Attribute |
| Consists of | A MS degree consists of courses | MS Degree  Courses | {0,1}  {4,6} | None |
| Owns | A student owns a transcript | Student  Transcript | {0,1}  {0,1} | None |
| Contains | Transcripts contain courses | Transcript  Courses | {0,1}  {1,n} |  |
| Advises | Faculty Advises student | Faculty  Student | {1,20}  {0,1} | None |
| Works in | Faculty works in office | Faculty  Office | {0,1}  {0,1} | None |