

Database Part 1

James McSweeney

Department(DepartmentName, chairName, NumFaculty)

Candidate Keys

(DepartmentName)

(Chairname)

Assumption: DepartmentName is a unique ID for each department. Chair names are also unique.

Primary key: DepartmentName

I choose DepartmentName as the primary key since it is unique and less likely to be updated than the chairname.

Students(StudentID, Major, Name, initials, AttendedEvent)

Candidate Keys

(StudentID)

(Major,name)

Assumption: StudentID is a unique value associated for each student.

Primary Key StudentID

I choose StudentID as the primary key because it is one attribute and unique for each student.

Major(Major, DepartmentCode)

Candidate Keys

(Major)

Assumption: Major names are unique

Primary Key: Major

Event(EventID, EventName, StartDate,EndDate)

Candidate Keys

(EventID)

Commented [MJ1]: The Major in students will be a list of strings, while the major in major will just be a string. should I give these different names or make both lists of strings even though major will always be 1

(EventName,StartDate)

Assumption: EventID will be a unique value associated with each event.

Primary Key: EventID

ASSUMPTION: the university allows majors to be available without a student in them. Events can have the same name. Departments do not have the same name.

Entity1	relationship	entity2	participation	cardinality	multiplicity	Type of Rel
department	Hosts Funded	Events	1	*	1..*	Many to many
Event		Departments	1	*	1..*	
department	create references	Major	1	*	1..*	One to many
Major		departments	1	1	1...1	
Student	IsEnrolledIn has	Major	1	*	1..*	Many to many
major		students	0	*	0..*	
Student	GoTo gathers	Events	1	*	1..*	Many to many
Event		students	1	*	1...*	

Constraints:

DepartmentName constraint like 'Department%'

Major constraint is not NULL (can be a vector of strings for multiple majors)

James McSweeney

Conceptual Model Database Project 1

