

A Flat File collection of data

- All of the data is in one file
- There is no security on portions of the file
- Course information has to be repeated over and over for as many times as is possible a student will enroll (repeating fields)

A Table of Data	
	First Name
	Last Name
	SocSecNum
	MCnumber
	StreetAddress
	City
	State
	Zip
	HomePhone
	MobilePhone
	Pager
	PrimaryEmail
	SecondaryEmail
	BirthDate
	FinancialAideAvail
	FinancialAideTaken
	FinancialAideLeft
	WorkStudyStatus
	WorkStudyHoursTotal
	WorkStudyHoursComplete
	YearOne
	SemesterOne
	CourseOne
	TeacherOne
	GradeOne
	RoomOne
	TimeOne
	DaysOne
	YearTwo
	SemesterTwo
	CourseTwo
	TeacherTwo
	GradeTwo
	RoomTwo
	TimeTwo
	DaysTwo
	YearThree
	SemesterThree
	CourseThree
	TeacherThree
	GradeThree
	RoomThree
	TimeThree
	DaysThree

A Flat File collection of data
(version two)

- All of the data is in one file
- There is no security on portions of the file
- Student Information is repeated each time a student takes a course (huge potential for errors)

A Table of Data	
	First Name Last Name SocSecNum MCnumber StreetAddress City State Zip HomePhone MobilePhone Pager PrimaryEmail SecondaryEmail BirthDate FinancialAideAvail FinancialAideTaken FinancialAideLeft WorkStudyStatus WorkStudyHoursTotal WorkStudyHoursComplete Year Semester Course Teacher Grade Room Time Days

Multiple Tables of data

- The data is separated into logical groupings
- Each table can have separate security settings
- No data is repeated
- No connections exist between the collections of data

Student Data	
	First Name Last Name SocSecNum MCnumber StreetAddress City State Zip HomePhone MobilePhone Pager PrimaryEmail SecondaryEmail BirthDate

FinancialAideData	
	FinancialAideAvail FinancialAideTaken FinancialAideLeft WorkStudyStatus WorkStudyHoursTotal WorkStudyHoursComplete

ClassInformation	
	Year Semester Course Teacher Grade Room Time Days

Multiple Tables of data (version two)

- The data is separated into logical groupings
- Each table can have separate security settings
- Minimal data is repeated
- Relationships exist between the collections of data
- A “Primary Key” exists (and cannot be repeated) for each record
- A “Foreign Key” (which can be repeated) can be used to build a relationship with another table

