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Assignment 4
Database Management - INF 385M
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iSchool Lab Equipment Data Dictionary

Entities

Entity Name	Description	Aliases	Occurrence
Person	Term used to describe all people associated with using or managing the equipment. Super class of all other people	patron, staff, administrator	Each person must be a patron, staff, or administrator. A person may be members of overlapping subclasses.
[Patron subclass]		Student, faculty, user	A patron may also be a staff member or an administrator. *but may only act as one member of any transaction (a staff member can not check out equipment to theirself)
[staff subclass]		TA, lab staff	
[administrator subclass]		manager	
Equipment_pkg	Term used to describe the unit of equipment that can be checked out by a patron. This is composed of all the primary equipment item and all the accessories that go with it.	equipment	Each equipment package must be a member of one and only one of the subclasses.
[Digital_camera subclass]			
[Video_camera subclass]		Digital video camera	
[Digital_rec subclass]			
[Laptop subclass]		Ibook, notebook	
[Recorder	Term used to describe tape recorders. Either a	Micro-	

[Recorder subclass]	Term used to describe tape recorders. Either a micro-recorder or cassette recorder	Micro-recorder, cassette recorder	
[miscellaneous	Term used to check out non-standard	other	

Relationships

Entity	Relationship	Entity	Cardinality	Participation
Patron	Reserve	Equipment_pkg	M:N	Optional / Optional
Patron	Transacts	Equipment_pkg	M:N	Optional / Optional
Staff	Transacts	Equipment_pkg	M:N	Optional / Optional
Administrator	Check_inventory	Equipment_pkg	M:N	Optional / Optional

Attributes

Entity	Attributes	Description	Notes	Nulls	Multi-valued
Person	UTID_no	Unique identifier for all persons	PK	No	No
	Lname	Person's last name		No	No
	Fname	Person's first name		No	No
[Patron subclass]	role	Identifies if the patron is a student or faculty. Each person is one or the other.	(student OR faculty)	No	No
	phone			No	No
	e-mail			No	No
Equipment_pkg	Pkg_id		PK	No	No
	Ut_bar_code			No	No
	Brand			No	No
	Co_duration	Duration of the equipments check-out period		No	No
	model			No	No
	Res_date			No	Yes
	description			No	No
	Purchase_date			No	No
	Warranty_info			No	No
	status			No	No
	Serial_no			No	No
	Equip_list			No	Yes
[digital_camera subclass]	Optical_zoom			Yes	No
	megapixels				No
	memory				No
[video_camera subclass]	Media	Description of the required media		Yes	No
[digital_rec subclass]					

[laptop subclass]	Platform Processor RAM HD_space Ethernet Wireless media				
[recorder subclass]	media	CD/DVD R/W			
[miscellaneous subclass]	Notes	This is problematic because it won't have a pkg_id and doesn't have a reservation option? Maybe pkg_id is created upon reservation???			
[transaction relationship]	In_out Contents Date notes			No	No
[check_inventory relationship]	date			No	No