Computerization of BITD

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Q. 1: Create data dictionaries for the selected modules of your project titled "Computerization of B.I.T. Mesra – Deoghar Campus".
A data dictionary is a collection of the names, definitions, and attributes for data elements and models. The data in a data dictionary is the metadata about the database. These elements are then used as part of a database, research project, or information system. A data dictionary is a collection of the names, definitions, and attributes for data elements and models. The data in a data dictionary is the metadata about the database. These elements are then used as part of a database, research project, or information system.

DATA DICTIONARY FOR SEMESTER OFFICE

Student Registration table:-

Field Name	Data type	size	null	key
Student_id	int	10	not	PRIMARY
User name	varchar	20	not	
Enrollment no	int	10	not	ALTERNATE
Branch	varchar	20	not	
mobile	int	10	not	
email	varchar	30	not	
password	varchar	30	not	

Student Profile table :-

Field Name	Data type	size	null	key
student_id	int	10	not	PRIMARY
user_name	varchar	30	not	
first_name	varchar	10	not	
middle_name	varchar	10	not	
last_name	varchar	10	not	
email	varchar	30	not	ALTERNATE
address	varchar	60	not	
mobli_no	int	10	not	ALTERNATE
department	varchar	10	not	
semester	int	10	not	
registtration _no	int	20		

Subject table : -

Field Name	Data type	size	null	key
Subject_id	int	10	not	PRIMARY
Subject_name	varchar	20	not	
subject_syllabus	varchar	1000		
subject_proff	varchar	20		
allotment	int	10		

Fees Table:-

Field Name	Data type	size	null	key
User_id	int	10	not	PRIMARY
user_name	varchar	30	not	
branch	varchar	20	not	
semester_fees	int	20	not	
email_id	varchar	30	not	
ph_no	int	10	not	

DATA DICTIONARY FOR GIRLS HOSTEL

Login table:-

Field Name	Data type	size	null	key
Login_id	int	10	not	PRIMARY
Login_password	varchar	20	not	

Student table:-

Field Name	Data type	size	null	key
student_id	int	10	not	PRIMARY
student_name	varchar	20	not	
email_id	varchar	50	not	
phone_no	int	10	not	
guardian_ph_no	int	10	not	
dob	date		not	
gender	varchar	8	not	
father_name	varchar	20	not	
mother_name	varchar	20	not	
address	varchar	50	not	
department	varchar	10	not	
blood_group	varchar	8	not	

Warden Table:-

Field Name	Data type	size	null	key
warden_id	int	10	not	PRIMARY
warden_name	varchar	20	not	
email_id	varchar	30	not	
address	varchar	50	not	
phone_no	int	10	not	
gender	varchar	8	not	

Room status:-

Field Name	Data type	size	null	key
hostel_id	int	10	not	
student_id	int	10	not	PRIMARY
room_allotment	varchar	20	not	
fees_dues	int	10	not	
complaints	varchar	50	not	

Leaving table:-

Field Name	Data type	size	null	key
hostel_id	int	10	not	
student_id	int	10	not	PRIMARY
reason_for_leave	varchar	50	not	
leave _date	date		not	
application_satus	varcahr	30	not	

DATA DICTIONARY FOR CSE

Student table:-

Field Name	Data type	size	null	key
student_id	int	10	not	PRIMARY
user_name	varchar	30	not	
first_name	varchar	10	not	
middle_name	varchar	10	not	
last_name	varchar	10	not	
email	varchar	30	not	ALTERNATE
address	varchar	60	not	
mobli_no	int	10	not	ALTERNATE
department	varchar	10	not	
semester	int	10	not	
registtration _no	int	20		

Faculty table:-

Field Name	Data type	size	null	key
Faculty_id	int	10	not	PRIMARY
faculty_name	varchar	30	not	
email_id	varchar	30	not	
designation	varchar	40	not	
qualifications	varchar	60	not	
contact_no	int	10		
experience	varchar	60		
subject_name	varchar	30	not	
subject_code	varchar	10	not	

Attendance Table:-

Field Name	Data type	size	null	key
student_id	int	10	not	PRIMARY
faculty_id	int	10	not	ALTERNATE
subject_name	varchar	20	not	
subject_code	int	10	not	
attendance	boolean	1	not	

Subject table:-

Field Name	Data type	size	null	key
Subject_id	int	10	not	PRIMARY
Subject_name	varchar	20	not	
subject_syllabus	varchar	1000		
subject_proff	varchar	20		
allotment	int	10		

Examination Table:-

Field Name	Data type	size	null	key
student_id	int	10	not	PRIMARY
result_id	int	10	not	
subject_name	varchar	20	not	
subject_code	varchar	10	not	
examination_id	int	10	not	
examination_date	date		not	
marks	int	10	not	

DATA DICTIONARY FOR ERP

Login table:-

Field Name	Data type	size	null	key
Login_id	int	10	not	PRIMARY
Login_password	varchar	20	not	

Student Profile table:-

Field Name	Data type	size	null	key
student_id	int	10	not	PRIMARY
user_name	varchar	30	not	
first_name	varchar	10	not	
middle_name	varchar	10	not	
last_name	varchar	10	not	
email	varchar	30	not	ALTERNATE
address	varchar	60	not	
mobli_no	int	10	not	ALTERNATE
department	varchar	10	not	
semester	int	10	not	
registtration _no	int	20		

Attendance table:-

Field Name	Data type	size	null	key
student_id	int	10	not	PRIMARY
faculty_id	int	10	not	ALTERNATE
subject_name	varchar	20	not	
subject_code	int	10	not	
attendance	boolean	1	not	

Course Table:-

Field Name	Data type	size	null	key
Course_id	int	10	not	PRIMARY
semester	varchar	20	not	
subject	varchar	20	not	
branch	varchar	20	not	
approval	bool	1		

Question 2: Prepare the normalized database (up to 3NF) for your selected modules of the project titled "Computerization of B.I.T. Mesra – Deoghar Campus)

Normalization is a database design technique that reduces data redundancy and eliminates undesirable characteristics like Insertion, Update and Deletion Anomalies. Normalization rules divide larger tables into smaller tables and link them using relationships. The purpose of Normalization in SQL is to eliminate redundant (repetitive) data and ensure data is stored logically

MODULE 1-SEMESTER OFFICE

Registration Schema

	student_id	user_name	enrollment_no	branch	mobile_no	email	passwordl
	60013	HARSH	1220	ECE	764	asxy@	k9&*
	60080	ALKA	1234	CSE	890	abc@	x&8h
	60084	ANAMIKA	1233	EEE	899	ffg@	fgh&
▶	60126	ASHISH	1346	CSE	678	sdfg@	87$g
✱	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Student Schema

student_id	user_name	first_name	middle_name	last_name	email	address	mobile_no	department	semester	registration_no
1236	ANA	ALKA	NULL	THAKUR	abc@	ASDGHJG	678	CDFG	5	1236
1237	ABB	ANAMIKA	NULL	NULL	sdf@	asdfh7	3489	cvfb	6	1237
1238	XYZ	ASHISH	KUMAR	THAKUR	asdf4	hjkuy4	899	asdfg	6	1298
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

MODULE 2- GIRLS HOSTEL

Studennt schema:-

student_id	user_name	first_name	middle_name	last_name	email	address	mobile_no	department	semester	registration_no
1236	ANA	ALKA	NULL	THAKUR	abc@	ASDGHJG	678	CDFG	5	1236
1237	ABB	ANAMIKA	NULL	NULL	sdf@	asdfh7	3489	cvfb	6	1237
1238	XYZ	ASHISH	KUMAR	THAKUR	asdf4	hjkuy4	899	asdfg	6	1298
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Warden Schema:-

warden_id	warden_name	email_id	address	ph_no	gender
1278	USHA	usha@	xyz	788	Female
1298	RANI	rani23@	cvh	999	FEMALE
1346	RAVI	ravi87@	ghjk	789	MALE
NULL	NULL	NULL	NULL	NULL	NULL

Hostel schema:-

hostel_id	student_id	mess_dues	complaint
1	123	0	NULL
2	124	500	good
2	126	670	
NULL	NULL	NULL	NULL

MODULE 3- CSE

Login Schema:-

login_id	password
1236	axmkij^h7
1278	asfh&j8
1800	asf67#d
NULL	NULL

Registration Schema

student_id	user_name	enrollment_no	branch	mobile_no	email	passwordl
60013	HARSH	1220	ECE	764	asxy@	k9&*
60080	ALKA	1234	CSE	890	abc@	x&8h
60084	ANAMIKA	1233	EEE	899	ffg@	fgh&
60126	ASHISH	1346	CSE	678	sdfg@	87$g
NULL	NULL	NULL	NULL	NULL	NULL	NULL

MODULE 4- ERP

Login schema:-

login_id	password
1236	axmkij^h7
1278	asfh&j8
1800	asf67#d
NULL	NULL

Student schema

student_id	user_name	first_name	middle_name	last_name	email	address	mobile_no	department	semester	registration_no
1236	ANA	ALKA	NULL	THAKUR	abc@	ASDGHJG	678	CDFG	5	1236
1237	ABB	ANAMIKA	NULL	NULL	sdf@	asdfh7	3489	cvfb	6	1237
1238	XYZ	ASHISH	KUMAR	THAKUR	asdf4	hjkuy4	899	asdfg	6	1298
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL