MAI172: Advance Database Technologies

Register Number: 2448513

Name: Deshmukh Pratik Bhushanrao

Experiment Number and Name: 2: Data Retrieval using JOINS

Date: 25/07/2024 Time: 9.45 to 11.45

INNER JOIN will only show rows where there's a match between the IDs in both tables.
LEFT JOIN and RIGHT JOIN will include all rows from the left or right table respectively, with NULLs for unmatched rows
from the other table.
FULL JOIN will include all rows from both tables, with NULLs for unmatched rows.
EQUI JOIN and INNER JOIN are functionally equivalent.
SELF JOIN is used to join a table to itself.
CROSS JOIN produces a Cartesian product of both tables

Entities: 1. TStudent_Master(USN, NAME ,COURSE ,BATCH, MOBNO, EMAIL, CITY)

       2. TStudents_Details (USN, SEMESTER, TM1, TM2, TM3, LM1, LM2 ,TOTAL, PERCENTAGE)

Table Creation:

Query:

> CREATE TABLE TStudent_Master (USN int primary key, NAME varchar (30), COURSE varchar (30), BATCH int (4), MOBNO varchar (10), EMAIL varchar (30), CITY varchar (20));

Output:

Field	Type	Null	Key	Default	Extra
USN	int	NO	PRI	NULL	
NAME	varchar(30)	YES		NULL	
COURSE	varchar(30)	YES		NULL	
BATCH	int	YES		NULL	
MOBNO	varchar(10)	YES		NULL	
EMAIL	varchar(30)	YES		NULL	
CITY	varchar(20)	YES		NULL	

Query:

CREATE TABLE TStudents_Details (USN int, SEMESTER int (1), TM1 int(3), TM2 int(3), TM3 int(3), LM1 int(3), LM2 int(3), TOTAL int(4), PERCENTAGE float, foreign key USN references TStudent_Master(USN)) ;

Output:

	Field	Type	Null	Key	Default	Extra
▶	USN	int	YES	MUL	NULL	
	SEMESTER	int	YES		NULL	
	TM1	int	YES		NULL	
	TM2	int	YES		NULL	
	TM3	int	YES		NULL	
	LM1	int	YES		NULL	
	LM2	int	YES		NULL	
	TOTAL	int	YES		NULL	
	PERCENTAGE	float	YES		NULL	

Inserting Records:

Inserting records in **TStudent_Master** table.

Query:

    INSERT INTO TStudent_Master VALUES (2343001, 'Alice Johnson', 'Computer Science', '2024', '9876543210', 'alice.johnson@example.com', 'Bengaluru'),

(2343002, 'Bob Smith', 'Mechanical Engineering', '2023', '9876543211', 'bob.smith@example.com', 'Mumbai'),

(2343003, 'Charlie Brown', 'Electrical Engineering', '2024', '9876543212', 'charlie.brown@example.com', 'Chennai'),

(2343004, 'David Wilson', 'Civil Engineering', '2022', '9876543213', 'david.wilson@example.com', 'Delhi'),

(2343005, 'Eva Green', 'Information Technology', '2023', '9876543214', 'eva.green@example.com', 'Hyderabad'),

(2343006, 'Frank White', 'Electronics Engineering', '2024', '9876543215', 'frank.white@example.com', 'Pune'),

(2343007, 'Grace Lee', 'Biotechnology', '2022', '9876543216', 'grace.lee@example.com', 'Kolkata'),

(2343008, 'Hannah Scott', 'Chemical Engineering', '2023', '9876543217', 'hannah.scott@example.com', 'Ahmedabad'),

(2343009, 'Ian Clark', 'Aerospace Engineering', '2024', '9876543218', 'ian.clark@example.com', 'Jaipur'),

(2343010, 'Jane Doe', 'Biomedical Engineering', '2022', '9876543219', 'jane.doe@example.com', 'Lucknow');

Output:

USN	NAME	COURSE	BATCH	MOBNO	EMAIL	CITY
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow
2343011	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow
NULL	NULL	NULL	NULL	NULL	NULL	NULL

Inserting records in **TStudents_Details** table.

Query:

        INSERT INTO TStudents_Details values

(2343001, 1, 85, 90, 88, 80, 85, 428, 85.6), (2343002, 2, 78, 82, 80, 75, 78, 393, 78.6),

(2343003, 1, 92, 88, 91, 85, 87, 443, 88.6), (2343004, 3, 70, 75, 72, 68, 70, 355, 71.0),

(2343005, 1, 88, 85, 87, 82, 84, 426, 85.2), (2343006, 4, 80, 78, 79, 75, 77, 389, 77.8),

(2343007, 1, 95, 92, 94, 90, 91, 462, 92.4), (2343008, 1, 76, 80, 78, 72, 75, 381, 76.2),

(2343009, 5, 89, 87, 88, 83, 86, 433, 86.6), (2343010, 2, 82, 84, 83, 78, 80, 407, 81.4);

Output:

USN	SEMESTER	TM1	TM2	TM3	LM1	LM2	TOTAL	PERCENTAGE
2343001	1	85	90	88	80	85	428	85.6
2343002	2	78	82	80	75	78	393	78.6
2343003	1	92	88	91	85	87	443	88.6
2343004	3	70	75	72	68	70	355	71
2343005	1	88	85	87	82	84	426	85.2
2343006	4	80	78	79	75	77	389	77.8
2343007	1	95	92	94	90	91	462	92.4
2343008	1	76	80	78	72	75	381	76.2
2343009	5	89	87	88	83	86	433	86.6
2343010	2	82	84	83	78	80	407	81.4

Join Operations:

1. INNER JOIN

   Query:

   SELECT TM.USN, NAME, COURSE, BATCH, MOBNO, EMAIL, CITY, SEMESTER, TM1, TM2, TM3, LM1, LM2, TOTAL, PERCENTAGE from TStudent_Master TM inner join TStudents_Details TD on TM.USN=TD.USN;

   Output:

USN	NAME	COURSE	BATCH	MOBNO	EMAIL	CITY	SEMESTER	TM1	TM2	TM3	LM1	LM2	TOTAL	PERCENTAGE
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	1	85	90	88	80	85	428	85.6
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2	78	82	80	75	78	393	78.6
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	1	92	88	91	85	87	443	88.6
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	3	70	75	72	68	70	355	71
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	1	88	85	87	82	84	426	85.2
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	4	80	78	79	75	77	389	77.8
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	1	95	92	94	90	91	462	92.4
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	1	76	80	78	72	75	381	76.2
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	5	89	87	88	83	86	433	86.6
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2	82	84	83	78	80	407	81.4

2. LEFT OUTER JOIN:

   Query:

   SELECT TM.USN, NAME, COURSE, BATCH, MOBNO, EMAIL, CITY, SEMESTER, TM1, TM2, TM3, LM1, LM2, TOTAL, PERCENTAGE from TStudent_Master TM left outer join TStudents_Details TD on TM.USN=TD.USN;

   Output:

USN	NAME	COURSE	BATCH	MOBNO	EMAIL	CITY	USN	SEMESTER	TM1	TM2	TM3	LM1	LM2	TOTAL	PERCENTAGE
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	2343001	1	85	90	88	80	85	428	85.6
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2343002	2	78	82	80	75	78	393	78.6
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	2343003	1	92	88	91	85	87	443	88.6
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	2343004	3	70	75	72	68	70	355	71
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343005	1	88	85	87	82	84	426	85.2
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	2343006	4	80	78	79	75	77	389	77.8
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	2343007	1	95	92	94	90	91	462	92.4
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	2343008	1	76	80	78	72	75	381	76.2
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	2343009	5	89	87	88	83	86	433	86.6
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2343010	2	82	84	83	78	80	407	81.4
2343011	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

3. RIGHT OUTER JOIN:

Query:

SELECT TM.USN, NAME, COURSE, BATCH, MOBNO, EMAIL, CITY, SEMESTER, TM1, TM2, TM3, LM1, LM2, TOTAL, PERCENTAGE from TStudent_Master TM right outer join TStudents_Details TD on TM.USN=TD.USN where SEMESTER =1;

Output:

USN	NAME	COURSE	BATCH	MOBNO	EMAIL	CITY	SEMESTER	TM1	TM2	TM3	LM1	LM2	TOTAL	PERCENTAGE
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	1	85	90	88	80	85	428	85.6
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	1	92	88	91	85	87	443	88.6
2343005	Eva Green	Information Tec Electrical Engineering		543214	eva.green@example.com	Hyderabad	1	88	85	87	82	84	426	85.2
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	1	95	92	94	90	91	462	92.4
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	1	76	80	78	72	75	381	76.2

4. FULL OUTER JOIN:

Query:

SELECT USN, NAME, COURSE, BATCH, EMAIL, CITY from TStudent_Master UNION select USN, TM1, TM2, TM3, LM1, LM2 from TStudents_Details;

Output:

USN	NAME	COURSE	BATCH	EMAIL	CITY
2343004	David Wilson	Civil Engineering	2022	david.wilson@example.com	Delhi
2343005	Eva Green	Information Technology	2023	eva.green@example.com	Hyderabad
2343006	Frank White	Electronics Engineering	2024	frank.white@example.com	Pune
2343007	Grace Lee	Biotechnology	2022	grace.lee@example.com	Kolkata
2343008	Hannah Scott	Chemical Engineering	2023	hannah.scott@example.com	Ahmedabad
2343009	Ian Clark	Aerospace Engineering	2024	ian.clark@example.com	Jaipur
2343010	Jane Doe	Biomedical Engineering	2022	jane.doe@example.com	Lucknow
2343001	85	90	88	80	85
2343002	78	82	80	75	78
2343003	92	88	91	85	87
2343004	70	75	72	68	70
2343005	88	85	87	82	84
2343006	80	78	79	75	77
2343007	95	92	94	90	91
2343008	76	80	78	72	75
2343009	89	87	88	83	86
2343010	82	84	83	78	80

5. SELF JOIN:
Query:

    SELECT TM1.USN, TM1.NAME, TM1.COURSE, TM1.BATCH, TM2.MOBNO, TM2.EMAIL, TM2.CITY from TStudent_Master TM1 join TStudent_Master TM2 on TM1.USN= TM2.USN;

Output:

	USN	NAME	COURSE	BATCH	MOBNO	EMAIL	CITY
▶	2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru
	2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai
	2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai
	2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi
	2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad
	2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune
	2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata
	2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad
	2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur
	2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow

6. EQUI JOIN:
Query:

    SELECT TM.USN, NAME, COURSE, BATCH, MOBNO, EMAIL, CITY, SEMESTER, TM1, TM2, TM3, LM1, LM2, TOTAL, PERCENTAGE from TStudent_Master TM join TStudents_Details TD on TM.USN=TD.USN;

Output:

USN	NAME	COURSE	BATCH	MOBNO	EMAIL	CITY	SEMESTER	TM1	TM2	TM3	LM1	LM2	TOTAL	PERCENTAGE
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	1	85	90	88	80	85	428	85.6
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2	78	82	80	75	78	393	78.6
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	1	92	88	91	85	87	443	88.6
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	3	70	75	72	68	70	355	71
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	1	88	85	87	82	84	426	85.2
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	4	80	78	79	75	77	389	77.8
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	1	95	92	94	90	91	462	92.4
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	1	76	80	78	72	75	381	76.2
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	5	89	87	88	83	86	433	86.6
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2	82	84	83	78	80	407	81.4

7. CROSS JOIN:
Query:

    SELECT * from TStudent_Master TM cross join TStudents_Details TD;

Output:

USN	NAME	COURSE	BATCH	MOBNO	EMAIL	CITY	USN	SEMESTER	TM1	TM2	TM3	LM1	LM2	TOTAL	PERCENTAGE
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2343001	1	85	90	88	80	85	428	85.6
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	2343001	1	85	90	88	80	85	428	85.6
2343008	Hannah Scott	Chemical Engineering		Aerospace Engineering	hannah.scott@example.com	Ahmedabad	2343001	1	85	90	88	80	85	428	85.6
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	2343001	1	85	90	88	80	85	428	85.6
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	2343001	1	85	90	88	80	85	428	85.6
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343001	1	85	90	88	80	85	428	85.6
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	2343001	1	85	90	88	80	85	428	85.6
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	2343001	1	85	90	88	80	85	428	85.6
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2343001	1	85	90	88	80	85	428	85.6
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	2343001	1	85	90	88	80	85	428	85.6
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2343002	2	78	82	80	75	78	393	78.6
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	2343002	2	78	82	80	75	78	393	78.6
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	2343002	2	78	82	80	75	78	393	78.6
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	2343002	2	78	82	80	75	78	393	78.6
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	2343002	2	78	82	80	75	78	393	78.6
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343002	2	78	82	80	75	78	393	78.6
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	2343002	2	78	82	80	75	78	393	78.6
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	2343002	2	78	82	80	75	78	393	78.6
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2343002	2	78	82	80	75	78	393	78.6
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	2343002	2	78	82	80	75	78	393	78.6
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2343003	1	92	88	91	85	87	443	88.6
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	2343003	1	92	88	91	85	87	443	88.6
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	2343003	1	92	88	91	85	87	443	88.6
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	2343003	1	92	88	91	85	87	443	88.6
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	2343003	1	92	88	91	85	87	443	88.6
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343003	1	92	88	91	85	87	443	88.6
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	2343003	1	92	88	91	85	87	443	88.6
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	2343003	1	92	88	91	85	87	443	88.6
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2343003	1	92	88	91	85	87	443	88.6
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	2343003	1	92	88	91	85	87	443	88.6
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2343004	3	70	75	72	68	70	355	71
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	2343004	3	70	75	72	68	70	355	71
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	2343004	3	70	75	72	68	70	355	71

USN	NAME	COURSE	BATCH	MOBNO	EMAIL	CITY	USN	SEMESTER	TM1	TM2	TM3	LM1	LM2	TOTAL	PERCENTAGE
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	2343004	3	70	75	72	68	70	355	71
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	2343004	3	70	75	72	68	70	355	71
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343004	3	70	75	72	68	70	355	71
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	2343004	3	70	75	72	68	70	355	71
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	2343004	3	70	75	72	68	70	355	71
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2343004	3	70	75	72	68	70	355	71
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	2343004	3	70	75	72	68	70	355	71
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2343005	1	88	85	87	82	84	426	85.2
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	2343005	1	88	85	87	82	84	426	85.2
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	2343005	1	88	85	87	82	84	426	85.2
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	2343005	1	88	85	87	82	84	426	85.2
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	2343005	1	88	85	87	82	84	426	85.2
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343005	1	88	85	87	82	84	426	85.2
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	2343005	1	88	85	87	82	84	426	85.2
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	2343005	1	88	85	87	82	84	426	85.2
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2343005	1	88	85	87	82	84	426	85.2
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	2343005	1	88	85	87	82	84	426	85.2
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2343006	4	80	78	79	75	77	389	77.8
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	2343006	4	80	78	79	75	77	389	77.8
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	2343006	4	80	78	79	75	77	389	77.8
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	2343006	4	80	78	79	75	77	389	77.8
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	2343006	4	80	78	79	75	77	389	77.8
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343006	4	80	78	79	75	77	389	77.8
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	2343006	4	80	78	79	75	77	389	77.8
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	2343006	4	80	78	79	75	77	389	77.8
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2343006	4	80	78	79	75	77	389	77.8
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	2343006	4	80	78	79	75	77	389	77.8
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2343007	1	95	92	94	90	91	462	92.4
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	2343007	1	95	92	94	90	91	462	92.4
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	2343007	1	95	92	94	90	91	462	92.4
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	2343007	1	95	92	94	90	91	462	92.4
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	2343007	1	95	92	94	90	91	462	92.4
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343007	1	95	92	94	90	91	462	92.4

USN	NAME	COURSE	BATCH	MOBNO	EMAIL	CITY	USN	SEMESTER	TM1	TM2	TM3	LM1	LM2	TOTAL	PERCENTAGE
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343007	1	95	92	94	90	91	462	92.4
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	2343007	1	95	92	94	90	91	462	92.4
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	2343007	1	95	92	94	90	91	462	92.4
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2343007	1	95	92	94	90	91	462	92.4
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	2343007	1	95	92	94	90	91	462	92.4
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2343008	1	76	80	78	72	75	381	76.2
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	2343008	1	76	80	78	72	75	381	76.2
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	2343008	1	76	80	78	72	75	381	76.2
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	2343008	1	76	80	78	72	75	381	76.2
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	2343008	1	76	80	78	72	75	381	76.2
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343008	1	76	80	78	72	75	381	76.2
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	2343008	1	76	80	78	72	75	381	76.2
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	2343008	1	76	80	78	72	75	381	76.2
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2343008	1	76	80	78	72	75	381	76.2
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	2343008	1	76	80	78	72	75	381	76.2
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2343009	5	89	87	88	83	86	433	86.6
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	2343009	5	89	87	88	83	86	433	86.6
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	2343009	5	89	87	88	83	86	433	86.6
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	2343009	5	89	87	88	83	86	433	86.6
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	2343009	5	89	87	88	83	86	433	86.6
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343009	5	89	87	88	83	86	433	86.6
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	2343009	5	89	87	88	83	86	433	86.6
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	2343009	5	89	87	88	83	86	433	86.6
2343002	Bob Smith	Mechanical Engineering	2023	9876543211	bob.smith@example.com	Mumbai	2343009	5	89	87	88	83	86	433	86.6
2343001	Alice Johnson	Computer Science	2024	9876543210	alice.johnson@example.com	Bengaluru	2343009	5	89	87	88	83	86	433	86.6
2343010	Jane Doe	Biomedical Engineering	2022	9876543219	jane.doe@example.com	Lucknow	2343010	2	82	84	83	78	80	407	81.4
2343009	Ian Clark	Aerospace Engineering	2024	9876543218	ian.clark@example.com	Jaipur	2343010	2	82	84	83	78	80	407	81.4
2343008	Hannah Scott	Chemical Engineering	2023	9876543217	hannah.scott@example.com	Ahmedabad	2343010	2	82	84	83	78	80	407	81.4
2343007	Grace Lee	Biotechnology	2022	9876543216	grace.lee@example.com	Kolkata	2343010	2	82	84	83	78	80	407	81.4
2343006	Frank White	Electronics Engineering	2024	9876543215	frank.white@example.com	Pune	2343010	2	82	84	83	78	80	407	81.4
2343005	Eva Green	Information Technology	2023	9876543214	eva.green@example.com	Hyderabad	2343010	2	82	84	83	78	80	407	81.4
2343004	David Wilson	Civil Engineering	2022	9876543213	david.wilson@example.com	Delhi	2343010	2	82	84	83	78	80	407	81.4
2343003	Charlie Brown	Electrical Engineering	2024	9876543212	charlie.brown@example.com	Chennai	2343010	2	82	84	83	78	80	407	81.4