

MySQL Queries

```
CREATE DATABASE india_job_market;
```

```
USE india_job_market;
```

```
select * from job_market_india
```

Record_Date	Company_Name	Job_Role	Experience_Level	City	Salary_INR	Demand_Index	Remote_Option_Flag	Salary_Trend_Pct
2015-11-22 14:50:46.932655	State Bank of India	Product Manager	0-1 years	Noida	1615767	71	0	8.72
2015-11-22 14:50:46.932655	Hindustan Unilever	Frontend Developer	0-1 years	Hyderabad	790163	81	0	5.26
2015-11-22 14:50:46.932655	Bharat Petroleum	Software Engineer	5-8 years	Bangalore	1104756	94	0	0.08
2015-11-22 14:50:46.932655	HDFC Bank	UI/UX Designer	5-8 years	Mumbai	905086	94	1	8.22
2015-11-22 14:50:46.932655	Maruti Suzuki	Data Analyst	1-3 years	Bangalore	578687	35	0	11.54
2015-11-23 14:50:46.932655	Paytm	UI/UX Designer	0-1 years	Pune	578565	58	0	11.5
2015-11-23 14:50:46.932655	Jio Platforms	Cloud Architect	5-8 years	Delhi	1649335	48	1	-4.1
2015-11-23 14:50:46.932655	Capgemini India	UI/UX Designer	3-5 years	Kolkata	568975	96	1	-1.53
2015-11-23 14:50:46.932655	Wipro	Business Analyst	8-12 years	Delhi	1453195	42	1	6.74
2015-11-23 14:50:46.932655	Aditya Birla Group	Data Scientist	12+ years	Noida	936181	85	1	-3.55
2015-11-23 14:50:46.932655	Tech Mahindra	Backend Developer	8-12 years	Bangalore	539877	73	0	6.14

```
SHOW COLUMNS FROM job_market_india
```

Field	Type	Null	Key	Default	Extra
Record_Date	text	YES		NULL	
Company_Name	text	YES		NULL	
Job_Role	text	YES		NULL	
Experience_Level	text	YES		NULL	
City	text	YES		NULL	
Salary_INR	int	YES		NULL	
Demand_Index	int	YES		NULL	
Remote_Option_Flag	int	YES		NULL	
Salary_Trend_Pct	double	YES		NULL	

Add experience_years Column

```
ALTER TABLE job_market_india
```

```
ADD COLUMN experience_years DECIMAL(4,1);
```

Populate experience_years

```
UPDATE job_market_india
```

```
SET experience_years =
```

```
CASE Experience_Level
```

```
    WHEN '0-1 years' THEN 0.5  
    WHEN '1-3 years' THEN 2  
    WHEN '3-5 years' THEN 4  
    WHEN '5-8 years' THEN 6.5  
    WHEN '8-12 years' THEN 10  
    WHEN '12+ years' THEN 15  
    ELSE NULL  
END;
```

Verify Experience Mapping

```
SELECT Experience_Level, experience_years  
FROM job_market_india  
GROUP BY Experience_Level, experience_years;
```

Result Grid		Filter Rows:	Export
	Experience_Level	experience_years	
▶	0-1 years	0.5	
	5-8 years	6.5	
	1-3 years	2.0	
	3-5 years	4.0	
	8-12 years	10.0	
	12+ years	15.0	

Add role_seniority Column

```
ALTER TABLE job_market_india  
ADD COLUMN role_seniority TINYINT;
```

Populate role_seniority

```
UPDATE job_market_india  
SET role_seniority =  
CASE
```

```

WHEN Job_Role LIKE '%Manager%'

OR Job_Role LIKE '%Lead%'

OR Job_Role LIKE '%Architect%'

OR Job_Role LIKE '%Principal%'

OR Job_Role LIKE '%Director%'

OR Job_Role LIKE '%Head%'

THEN 1

ELSE 0

END;

```

Verify Role Seniority

```

SELECT Job_Role, role_seniority
FROM job_market_india
LIMIT 15;

```

Result Grid | Filter Rows:

	Job_Role	role_seniority
▶	Product Manager	1
	Frontend Developer	0
	Software Engineer	0
	UI/UX Designer	0
	Data Analyst	0
	UI/UX Designer	0
	Cloud Architect	1
	UI/UX Designer	0
	Business Analyst	0
	Data Scientist	0
	Backend Developer	0
	Product Manager	1

Result Grid | Filter Rows: Export:

Job_Role	role_seniority
Data Analyst	0
UI/UX Designer	0
Cloud Architect	1
UI/UX Designer	0
Business Analyst	0
Data Scientist	0
Backend Developer	0
Product Manager	1
DevOps Engineer	0
Digital Marketing S...	0
HR Manager	1

Company-wise Salary Benchmarking

```

SELECT
    company_name,
    ROUND(AVG(salary_inr), 0) AS avg_salary,
    COUNT(*) AS job_count
FROM job_market_india
GROUP BY company_name
ORDER BY avg_salary DESC
LIMIT 15;

```

Result Grid | Filter Rows: Export:

	company_name	avg_salary	job_count
▶	Bharat Petroleum	1356502	969
	Jio Platforms	1343748	910
	HCL Technologies	1336288	905
	Axis Bank	1325678	945
	Amazon India	1316370	879
	State Bank of India	1314763	976
	Aditya Birla Group	1311241	928
	PhonePe	1308899	965
	Larsen & Toubro	1307043	914
	Flipkart	1306978	966
	Deloitte India	1302804	931
	RWII ICS	1300046	954

Result Grid | Filter Rows: Export: Wrap Cell

	company_name	avg_salary	job_count
	Amazon India	1316370	879
	State Bank of India	1314763	976
	Aditya Birla Group	1311241	928
	PhonePe	1308899	965
	Larsen & Toubro	1307043	914
	Flipkart	1306978	966
	Deloitte India	1302804	931
	BYJU'S	1300046	954
	Tata Motors	1298800	876
	Mahindra & Mahindra	1298743	932
	Kotak Mahindra Bank	1297975	942

Role x Experience Salary Progression

```

SELECT
    job_role,
    experience_level,
    ROUND(AVG(salary_inr), 0) AS avg_salary
FROM job_market_india
GROUP BY job_role, experience_level
ORDER BY
    job_role,
    MIN(experience_years)
LIMIT 1000;

```

Result Grid | Filter Rows: Export: Wrap Cell C

	job_role	experience_level	avg_salary
▶	Backend Developer	0-1 years	1124649
	Backend Developer	1-3 years	1106937
	Backend Developer	3-5 years	1136208
	Backend Developer	5-8 years	1074021
	Backend Developer	8-12 years	1098725
	Backend Developer	12+ years	1102984
	Business Analyst	0-1 years	906806
	Business Analyst	1-3 years	943128
	Business Analyst	3-5 years	971312
	Business Analyst	5-8 years	946167
	Business Analyst	8-12 years	921691
	Business Analyst	12+ years	985094

Result Grid | Filter Rows: Export: Wrap Cell Content: AA

	job_role	experience_level	avg_salary
	Business Analyst	12+ years	985094
	Cloud Architect	0-1 years	2852496
	Cloud Architect	1-3 years	2823867
	Cloud Architect	3-5 years	2827974
	Cloud Architect	5-8 years	2812688
	Cloud Architect	8-12 years	2857285
	Cloud Architect	12+ years	2870668
	Cybersecurity Ana...	0-1 years	1529205
	Cybersecurity Ana...	1-3 years	1519555
	Cybersecurity Ana...	3-5 years	1464266
	Cybersecurity Ana...	5-8 years	1546893
	Cybersecurity Ana...	8-12 years	1532479

Result Grid | Filter Rows: Export: Wrap Cell Content: AA

	job_role	experience_level	avg_salary
	Cybersecurity Ana...	8-12 years	1532479
	Cybersecurity Ana...	12+ years	1483147
	Data Analyst	0-1 years	775934
	Data Analyst	1-3 years	743575
	Data Analyst	3-5 years	756613
	Data Analyst	5-8 years	752918
	Data Analyst	8-12 years	764979
	Data Analyst	12+ years	732897
	Data Scientist	0-1 years	1506446
	Data Scientist	1-3 years	1521998
	Data Scientist	3-5 years	1511334
	Data Scientist	5-8 years	1481008

	job_role	experience_level	avg_salary
	Data Scientist	5-8 years	1481998
	Data Scientist	8-12 years	1471299
	Data Scientist	12+ years	1498394
	DevOps Engineer	0-1 years	1373933
	DevOps Engineer	1-3 years	1325180
	DevOps Engineer	3-5 years	1354281
	DevOps Engineer	5-8 years	1326110
	DevOps Engineer	8-12 years	1400659
	DevOps Engineer	12+ years	1349015
	Digital Marketing S...	0-1 years	735078
	Digital Marketing S...	1-3 years	738321
	Digital Marketing S...	3-5 years	762371

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

	job_role	experience_level	avg_salary
	Digital Marketing S...	5-8 years	736709
	Digital Marketing S...	8-12 years	793159
	Digital Marketing S...	12+ years	751023
	Finance Analyst	0-1 years	776038
	Finance Analyst	1-3 years	724823
	Finance Analyst	3-5 years	779681
	Finance Analyst	5-8 years	746621
	Finance Analyst	8-12 years	747591
	Finance Analyst	12+ years	748239
	Frontend Developer	0-1 years	964312
	Frontend Developer	1-3 years	900374
	Frontend Developer	3-5 years	907501

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

	job_role	experience_level	avg_salary
	Frontend Developer	3-5 years	907501
	Frontend Developer	5-8 years	941195
	Frontend Developer	8-12 years	935147
	Frontend Developer	12+ years	901367
	HR Manager	0-1 years	1104819
	HR Manager	1-3 years	1157198
	HR Manager	3-5 years	1066741
	HR Manager	5-8 years	1094099
	HR Manager	8-12 years	1093212
	HR Manager	12+ years	1141507
	Machine Learning ...	0-1 years	1827719
	Machine Learning ...	1-3 years	1800089

Result Grid | Filter Rows: Export: Wrap Cell Content:

job_role	experience_level	avg_salary
Machine Learning ...	3-5 years	1801079
Machine Learning ...	5-8 years	1830585
Machine Learning ...	8-12 years	1800318
Machine Learning ...	12+ years	1825041
Operations Manager	0-1 years	1221056
Operations Manager	1-3 years	1230458
Operations Manager	3-5 years	1260413
Operations Manager	5-8 years	1266021
Operations Manager	8-12 years	1242746
Operations Manager	12+ years	1236854
Product Manager	0-1 years	2501404
Product Manager	1-3 years	2508361

Result Grid | Filter Rows: Export:

job_role	experience_level	avg_salary
Product Manager	3-5 years	2427215
Product Manager	5-8 years	2513107
Product Manager	8-12 years	2456606
Product Manager	12+ years	2579418
Software Engineer	0-1 years	921401
Software Engineer	1-3 years	943604
Software Engineer	3-5 years	920042
Software Engineer	5-8 years	928945
Software Engineer	8-12 years	926126
Software Engineer	12+ years	942157
UI/UX Designer	0-1 years	747218
UI/UX Designer	1-3 years	739294

Result Grid | Filter Rows: Export:

job_role	experience_level	avg_salary
Software Engineer	1-3 years	943604
Software Engineer	3-5 years	920042
Software Engineer	5-8 years	928945
Software Engineer	8-12 years	926126
Software Engineer	12+ years	942157
UI/UX Designer	0-1 years	747218
UI/UX Designer	1-3 years	739294
UI/UX Designer	3-5 years	761370
UI/UX Designer	5-8 years	738655
UI/UX Designer	8-12 years	760020
UI/UX Designer	12+ years	734429

Demand Index vs Hiring Saturation

SELECT

job_role,

city,
 ROUND(AVG(demand_index), 2) AS avg_demand,
 COUNT(*) AS job_count
 FROM job_market_india
 GROUP BY job_role, city
 ORDER BY job_count DESC
 LIMIT 15;

job_role	city	avg_demand	job_count
DevOps Engineer	Hyderabad	56.85	221
Software Engineer	Pune	52.76	220
Digital Marketing Specialist	Kolkata	55.59	220
Machine Learning Engineer	Ahmedabad	51.81	217
Cybersecurity Analyst	Bangalore	51.71	216
HR Manager	Delhi	53.73	213
Cybersecurity Analyst	Gurugram	52.78	212
Machine Learning Engineer	Bangalore	55.68	211
Software Engineer	Bangalore	53.78	210
Data Analyst	Delhi	54.98	209
Cybersecurity Analyst	Noida	57.34	209
HR Manager	Chennai	56.16	208

job_role	city	avg_demand	job_count
Cybersecurity Analyst	Bangalore	51.71	216
HR Manager	Delhi	53.73	213
Cybersecurity Analyst	Gurugram	52.78	212
Machine Learning Engineer	Bangalore	55.68	211
Software Engineer	Bangalore	53.78	210
Data Analyst	Delhi	54.98	209
Cybersecurity Analyst	Noida	57.34	209
HR Manager	Chennai	56.16	208
Finance Analyst	Chennai	50.27	207
Product Manager	Bangalore	56.00	207
Operations Manager	Ahmedabad	55.20	205

Remote vs On-site Salary Comparison

SELECT
 remote_option_flag,
 ROUND(AVG(salary_inr), 0) AS avg_salary
 FROM job_market_india

```
GROUP BY remote_option_flag;
```

Result Grid		
	remote_option_flag	avg_salary
▶	0	1293475
	1	1295038

Time-Series Salary Trend

```
SELECT  
    YEAR(record_date) AS year,  
    ROUND(AVG(salary_inr), 0) AS avg_salary  
FROM job_market_india  
GROUP BY year  
ORDER BY year;
```

Result Grid		
	year	avg_salary
▶	2015	1230128
	2016	1288923
	2017	1307535
	2018	1307259
	2019	1281995
	2020	1285382
	2021	1297908
	2022	1282351
	2023	1297520
	2024	1306740
	2025	1294290