



FAQs

BACHELOR OF TECHNOLOGY

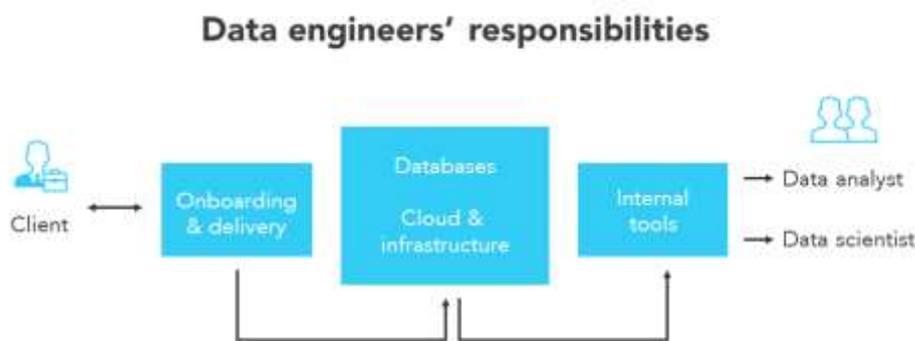
DATA ENGINEERING & BUSINESS ANALYTICS

B.Tech with specialization In Data Engineering and Business

Analytics

What is B.Tech in CSE with specialization in Data Engineering & Business Analytics in collaboration with Xebia?

This 4-year undergraduate course of Computer Science & Engineering in Data Engineering & Business Analytics is a program to build a learner with strong expertise in facets of data. The course on data engineering and business analytics at Xebia is designed to provide individuals with the knowledge and skills required to effectively work with data and derive valuable insights for making informed business decisions. The course typically covers a range of topics related to data engineering, data management, and business analytics techniques.



Source: AnalyticsVidya

Where do you see Data Engineering?

We are living with data. Every digital engagement or transaction we do, data is generated. To derive meaningful data Interpretation data engineering and analytics becomes essential to make business decisions.

- **Recommendation:** Data engineering and analytics enable the development of personalized recommendation engines that suggest products or services to customers based on their browsing and purchase history. (*Amazon Purchase, Netflix Movie Recommendation, Facebook Reel Video queue, etc*)
- **Fraud detection:** Data engineering and business analytics can be used to identify fraudulent transactions by analyzing patterns and anomalies in large volumes of financial data.
- **Customer segmentation and targeting:** Data engineering and business analytics can help retailers analyze customer data to segment their customer base, understand their preferences, and tailor marketing strategies accordingly. (Once you view a predict on Amazon it starts appearing everywhere- website you visit, Instagram you browse, etc)
- **Predictive analytics for disease diagnosis:** By analyzing patient data, including medical history, lab results, and symptoms, data engineering and analytics can help predict disease risks, diagnose conditions, and recommend appropriate treatments.

What is the scope of specialization in Data Engineering & Business Analytics ?

Data Engineering is high in demand with being top ranked amongst millions of jobs by leading job websites. The scope of data engineering and business analytics is continually expanding, driven by the increasing importance of data-driven decision-making in organizations across industries. Professionals in these fields have significant career prospects and the opportunity to make a substantial impact on organizations by leveraging data for actionable insights and improved business performance.

What is the task of a Data Engineer?

The tasks of a data engineer and a business analyst are shared below:

- Data engineers are responsible for designing, developing, and maintaining data pipelines.
- They ensure data consistency, quality, and accuracy during the integration process Integrating from multiple sources.
- They manage database performance, security, and scalability.
- Data engineers design and implement data models.
- Data engineers ensure data quality by implementing data validation and cleansing processes.
- Data engineers optimize data processing and query performance.
- They identify the key metrics, data needs, and analytical requirements to support decision-making processes.
- Analyze data to derive insights and identify trends, patterns, and correlations. They use statistical methods, data visualization tools, and business intelligence platforms to perform data analysis and generate reports.
- Map and document business processes, workflows, and data flows.
- Create reports, dashboards, and visualizations to communicate insights and key performance indicators (KPIs) to stakeholders.

Why take up the Data Engineering & Business Analytics Program?

- **High Demand and Career Growth:** There is a significant and growing demand for skilled professionals in business analytics and data engineering.
- **Impactful Decision-Making:** Business analytics and data engineering empower organizations to make informed, data-driven decisions. By working in these fields, you can contribute to solving complex business problems, optimizing processes, and driving strategic initiatives that directly impact the success of organizations.
- **Diverse Industry Applications:** The skills and knowledge gained in business analytics and data engineering are applicable across diverse industries, including finance, healthcare, retail, manufacturing, and more. This provides flexibility in choosing the industry that aligns with your interests and passions.

- **Innovation and Technological Advancements:** The fields of business analytics and data engineering are continuously evolving. New technologies, tools, and methodologies emerge regularly, providing opportunities for learning and innovation. You can work with cutting-edge technologies, explore advanced analytics techniques, and contribute to the development of new data-driven solutions.
- **Varied Roles and Specializations:** Business analytics and data engineering offer a range of roles and specializations, allowing you to choose a career path that aligns with your skills and interests. Whether you prefer data management, data visualization, machine learning, or strategic analysis, there are diverse avenues to explore.
- **Competitive Salary and Benefits:** The increasing demand for skilled professionals in business analytics and data engineering translates into competitive salary packages and attractive benefits. These careers often offer rewarding compensation that recognizes the value of data-driven expertise.
- **Career Flexibility and Portability:** The skills acquired in business analytics and data engineering are highly transferable. You can apply your knowledge across industries and even transition into related roles, such as data science or management positions. This flexibility allows for career exploration and adaptability to changing industry trends.

A career in business analytics and data engineering offers a unique combination of analytical thinking, technical expertise, and business acumen. It allows you to be at the forefront of the data revolution, shaping the future of organizations through the power of data-driven insights and innovation.

Which are the top employers who are hiring for Data Engineers?

- Amazon
- Microsoft
- Google
- IBM
- Accenture
- Infosys
- Deloitte
- Xebia
- Oracle
- McKinsey & Company

How does the salary bracket for Data Engineer look like?

The salary of a data engineer can vary significantly depending on factors such as location, experience, industry, and the company's size. The salary trends for data engineers in India based on available data.

1. **Entry-level Data Engineer:** The salary for entry-level data engineers in India typically ranges from **₹4 lakh to ₹8 lakh per annum** (\$5,500 to \$11,000). These are individuals with 0-2 years

of experience in the field.

2. Mid-level Data Engineer: With 2-5 years of experience, mid-level data engineers can expect a salary range of **₹8 lakh to ₹15 lakh per annum (\$11,000 to \$20,500)**. Salary can vary based on the complexity of the projects and the company's size.

3. Senior-level Data Engineer: Data engineers with over 5 years of experience and advanced skills can earn salaries ranging from **₹15 lakh to ₹30+ lakh per annum (\$20,500 to \$41,000+)**. Senior-level data engineers are responsible for leading projects, handling complex data infrastructure, and managing teams.

It's important to note that these figures are approximate and can vary based on individual circumstances. Moreover, salary trends are subject to change over time due to market conditions, demand, and other factors. It is advisable to consult recent job listings, industry reports, and salary surveys for the most up-to-date information on data engineer salaries in India.

What is the demand for Data Engineer in India?

The demand for data engineers in India has been consistently growing over the years. With the increasing adoption of data-driven decision-making by businesses, there is a growing need for professionals who can build and manage robust data infrastructure. The demand for data engineers in India is influenced by factors such as industry growth, technology advancements, and the adoption of data analytics and AI-driven solutions. The increasing use of cloud platforms, big data technologies, and algorithms further contributes to the demand for skilled data engineers.

Who will teach me?

Experienced Industry Experts and Practitioners who work on real-time and live projects will directly engage with the learners and train and mentors in the technology domain making them industry ready.

What are the career options in Data Engineering?

1. Data Engineer
2. Business Analyst
3. Data Analyst
4. Software Engineer
5. Implementation Engineer
6. Analyst
7. Visual Analyst
8. Data Architect

What skills would I require to become a Data Engineer?

Data Engineers must have skill set including databases, data lakes, data ecosystems,

ingestion, analysis, databases and storage, visual analytics, governance, data management, data Integration, platforms and tools.

What are the career options for D Engineers (What are the Business domains to work with)

In the world of Software development and Applications the capacity to deal with high volume of data and ease of use and responsiveness is the key. Build Robust, Secure, Responsive, and performing Systems in all application areas from Ecommerce Business, food delivery applications to Healthcare and finance incorporates elements of Data Engineering &

Specialization Programme with Xebia

General Xebia Specific FAQs

Why Should we choose a specialized course instead of normal B.Tech?

The industry is evolving, and it needs skilled people, equipped with the knowledge of the latest tools and industry trends. Thus, specialization helps in bridging that gap and make students fully industry ready.

What is the company about?

Xebia is a pioneering IT consultancy and Software Development Company headquartered in Netherlands with offices globally USA, UK, France, Dubai, and India. It has a group of highly ambitious craftsmen and delivers high-quality training to cover all aspects of digital transformation- From digital strategy to technology implementation and data digital transformation.

The company provides innovative solutions and services to help organizations become a digital winner.

Xebia's expert collectives specialized in Data & AI, Cloud, DevOps, Full Stack Development, Business Agility, Security, Training & Learning, Software Development, Product Management and Quality Improvement, empower our brand.

The company have collaborated with universities to provide specialized courses in the technologies which are highly demanded in the industry.

Does Xebia provide any extra support (like optional topics, certifications)?

At the end of the course Xebia will provide a certification with the degree from the college for the specialization. There will be activities such as hackathons, tech sessions and Industry experts' sessions, regular webinars and support of mentor.

Xebia will also provide support in getting internships & relevant job opportunities within Xebia and its client network.

Why should I join this course?

- State of the Art Curriculum Designed by Industry Practitioners and Academic Experts

- Learn in a way to revolutionize the industry with top-notch skills.
- New Age Flexible Course Structure for the New Age Professional
- Access to Xebia's Enterprise Learning Management System "Digital Learn"
- Regular masterclasses by Xebia Industry Experts
- Continuous Evaluation Program including Assessments and Assignments
- Opportunity to access various Instructor led programs, Mentorship programs, Capstone programs and Student Development programs.
- Full access to Xebia Knowledge Exchange (XKE) Portal
- Full access to various open-source tools
- Virtual lab environment for hands on experience
- Working on More than 20+ real time projects
- Excellent placement opportunities through Xebia Corporate partners
- Opportunity to participate in the following student led initiatives at Xebia providing a platform to get recognized with the global-tech community
 - Campus Ambassador Program
 - Xe-Thon including Champions League, Ideathon and Hackathon
 - X-Tech TED: Xebia Tech Ted Week
 - Annual Conclave
 - TECH-XE – The Student-Led Quarterly Newsletter.

What are the course delivery methodologies? How would Xebia ensure there is hands-on learning to learn the practical side of these technologies.

- The Experiential Learning Module is designed to provide students with hands-on experience on a wide range of technologies, while working on projects that emanate from real-world business scenarios. It not only helps them familiarize with industry standard methodologies and technologies in use by distinct industries, but also helps evaluate and identify – from their own personal experience – the role and/ or projects that they are best suited to work on.
- Students will also be assigned projects/case studies and will be expected to demonstrate the knowledge and concepts learnt in the class. The assessor will be marking students' performance on various parameters expected out of program.
- Case Study: Refer to real time problems that can be referred to a specific topic mentioned above which caters a particular business/ functional use case, to make the sessions intuitive.
- Exercises: The context of exercises is to ensure a thorough hands-on perspective of the sessions and give programmatic exposure to the attendees. Faculty shall drive that by expressing individual topics via hands on exercises as much as possible to ensure the effectiveness of the sessions.
- Assignments: To keep the attendees/participants engaged and enhance their learnings beyond live sessions, they shall be given access to a pool of assignments pertaining their credibility of the sessions with regards to the level of complexity, there shall be dedicated offline & online assignments for the participants to accomplish their learning imbibed.

Would Xebia support us with any Industry project and what mentorship support will be provided?

The content is provided by industry leaders, validated by educators and industry partners, and adopted by academic institutions globally.

Our team has worked with industry experts to provide insights into careers that are taking over the job market. The course content is aligned to this market research, which is updated regularly to ensure our material stays relevant to the needs of the industry.