APPONIX TECHNOLOGIES

SPECIAL COURSES FOR INTERNSHIP PROGRAMS

(AS PER UNIVERSITY NORMS)



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About Us

Setting a benchmark in the industry, Apponix Technologies Private Limited is the most innovative Training and Recruitment Company strategically located in Bangalore, delivering classroom and online trainings across India, UK and USA.

What We Focus On

- Achieving ample exposure
- Revolutionising the standard of learning and development
- Addressing on-the-job challenges
- Providing tailored training solutions
- eLearning concept
- Integration of classroom face-to-face learning experiences

Apponix stands for professionalism and quality of service, leading the way with INNOVATIVE concepts and constantly striving for EXCELLENCE across all industry sectors. With a holistic approach built around meeting the long-term needs of both employers and staff, we provide the foundation for successful career. While we ensure that the candidates fit into the right position, we make sure that the industry gets a constant inflow of quality staff.

We offer job-oriented courses that can help you jumpstart your career in the ever-evolving technology industry. Our courses are designed to equip you with the necessary skills and knowledge to land your dream job in fields such as Cloud Computing, DevOps, Cyber Security, Full Stack Development, Data Science, Digital Marketing, and Web Development.

Our team of excellent trainers comprises experienced working professionals who possess real-time experience in their respective domains. With their expertise, they will provide you with the best guidance and support to ensure that you learn the latest technologies and tools that are in demand in the industry. Our company was established in 2013, almost a decade ago, and we have trained more than 10,000 students in various technologies. We are proud to have been awarded as the best educational institute by Suvarna News Channel. This recognition serves as a testament to our commitment to providing high-quality training to our students.

As authorised partners of VMware, IABAC, and Jainx, we offer industry-recognised certifications upon completion of our courses. In addition, we are ISO certified, which means that we adhere to the highest quality standards in our training and delivery. We understand the importance of finding a job after completing a course, and that's why we provide placement assistance to our students. We have a dedicated placement cell that works closely with top companies in the industry to ensure that our students get placed in the best companies with competitive salaries

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Program - Full Stack Web Development

Week-1: Introduction to Web Development

- Overview of full stack development
- Introduction to HTML, CSS, and JavaScript
- Setting up development environment (IDEs, text editors, browsers)
- Basics of version control with Git and GitHub

Week 2-3: Frontend Development

- HTML and CSS
- Advanced HTML concepts (forms, tables, semantic HTML)
- CSS styling techniques (flexbox, grid layout, responsive design)
- ➤ Introduction To CSS preprocessors
- JavaScript
- JavaScript fundamentals (variables, data types, operators)
- > DOM manipulation
- Event handling
- Introduction to JavaScript frameworks (e.g., React, Vue.js)

Week 4-5: Backend Development

- Introduction to Node.js and Express.js
- ➤ Introduction to server-side programming with PHP
- ➤ Building RESTful APIs
- Middleware concepts
- Authentication and authorization
- Databases
- Introduction to databases (SQL vs NoSQL)
- Working with MongoDB or MySQL
- CRUD operations
- Database modeling and schema design

Week 6-7: Full Stack Development

- Integrating frontend with backend
- Consuming APIs
- ➤ Handling HTTP requests/responses
- State management (e.g., Redux for React)



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Program - Full Stack Web Development

Week 8-9: Advanced Topics

- Authentication and Authorization
- > Testing and Debugging
- Debugging techniques
- Introduction to Deployment strategies (e.g., Heroku, AWS, Firebase)
- Continuous Integration and Continuous Deployment (CI/CD)

Week 10: Project Work

- ➤ Interns work on a full stack project individually or in teams
- Regular code reviews and feedback sessions
- > Final project presentation
- Additional Resources and Activities
- Weekly coding challenges or exercises
- Online resources and tutorials for self-study



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Program - Full Stack Web Development with Python

Week 1: Introduction to Web Development and Python Basics

- Overview of full-stack web development
- Client-side vs. server-side programming
- Basics of HTML, CSS, and JavaScript

Week 2-3: Python Fundamentals

- > Introduction to Python programming language
- Variables, data types, and operators
- Control flow and loops
- Functions and modules

Week 4: Introduction to Python Advanced Modules

> NUmpy, Matplotlib, Scipy, Pandas

Week 5-6: Django Templates and Forms

➤ Handling forms and form validation

Week 7-8: Working with Databases

- ➤ Introduction to relational databases
- Database setup and configuration
- CRUD operations with Python and MYSQL

Week 9-10: Understanding Restful API's

➤ API Methods and HTTP Success Codes

Week 11-12: Frontend Development with JavaScript and React

- Introduction to JavaScript and React.js
- Component-based architecture

Week 13: Full Stack Integration

Understanding Back End Strategies for Deployment

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Program - Full Stack Web Development with Java

Week 1: Introduction to Web Development and Java Basics

- Overview of full-stack web development
- Client-side vs. server-side programming
- Basics of HTML, CSS, and JavaScript

Week 2-3: Java Fundamentals

- Introduction to Java programming language
- Variables, data types, and operators
- Control flow and loops
- Object-oriented programming concepts (classes, objects, inheritance, polymorphism)

Week 4: Introduction to Spring Boot

- ➤ Introduction to Spring Boot framework
- Setting up a basic Spring Boot application
- Dependency Injection and Inversion of Control (IoC)

Week 5-6: Spring MVC and RESTful APIs

- Building RESTful APIs with Spring MVC
- Request mapping and handling
- Serialization and deserialization of data

Week 7-8: Working with Databases

- Introduction to relational databases (Spring Data JPA with Hibernate)
- Database setup and configuration
- > CRUD operations with Spring Data JPA

Week 9-10: Authentication and Security

- Implementing authentication and authorization with Spring Security
- ➤ Role-based access control
- Token-based authentication (JWT)



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Program - Full Stack Web Development with Java

Week 11-12: Frontend Development with JavaScript and React

- ➤ Introduction to JavaScript and React.js
- Component-based architecture

Week 13: Full Stack Integration

- ➤ Integrating Spring Boot backend with frontend
- Consuming APIs from the frontend
- > Introduction to Deployment strategies (e.g., Heroku, AWS)



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Program -Data Science a Level of Approach for Beginners

Week 1-2: Introduction to Data Science

- Overview of data science and its applications
- Introduction to the data science workflow
- Basics of statistics and probability

Week 3-4: Python Fundamentals for Data Science

- Introduction to Python programming language
- Variables, data types, and operators
- Control flow and loops
- Functions and modules relevant to data science (NumPy, Pandas)

Week 5-6: Data Manipulation with Pandas

- Data ingestion and manipulation using Pandas
- Handling missing data and data cleansing
- Aggregating and summarizing data

Week 7-8: Data Visualization with Matplotlib and Seaborn

- ➤ Introduction to data visualization principles
- Creating static and interactive visualizations with Matplotlib and Seaborn
- Exploratory Data Analysis (EDA)

Week 9-10: Introduction to Machine Learning

- Overview of machine learning concepts and types of algorithms
- Supervised vs. unsupervised learning
- Model evaluation and validation techniques

Week 11-12: Intermediate Machine Learning

- Feature engineering and selection
- Model selection and hyperparameter tuning
- Ensemble learning techniques (e.g., Random Forest, Gradient Boosting)

Week 13: Model Deployment and Project Work

- ➤ Deploying machine learning models using Flask or other frameworks
- ➤ Interns work on a data science project individually or in teams
- Regular project checkpoints and feedback sessions

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Week 1: Introduction & Overview of Data Analytics and Power BI

Overview of Data Analytics

- Introduction to Data Analytics
- ➤ The role of a Data Analyst
- Importance of data-driven decision-making

Getting Started with Power BI

- ➤ Introduction to Power BI: Overview, features, and components
- ➤ Installing Power BI Desktop
- ➤ Introduction to the Power BI Service (Cloud)
- Understanding the Power BI Interface

Basic Concepts of Data and Databases

- > Types of data: Structured vs. Unstructured
- Basics of databases and SQL
- Data sources in Power BI: Excel, CSV, databases, and cloud services

Week 2: Data Preparation and Transformation

Data Import and Connectors

- Connecting to various data sources (Excel, SQL Server, Web, etc.)
- Understanding and managing queries

Data Cleaning and Transformation

- ➤ Introduction to Power Query Editor
- ➤ Data cleaning techniques: Handling missing values, removing duplicates
- Data transformation: Pivoting, unpivoting, merging, and appending datasets

Data Modeling in Power BI

- Understanding tables, columns, and relationships
- Creating and managing relationships between tables
- Introduction to Star Schema and Snowflake Schema
- Creating calculated columns and measures

Week 3: Data Visualization and Reporting

Introduction to Data Visualization

- ➤ Importance of data visualization in analytics
- ➤ Best practices for creating effective visualizations

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***** Building Visualizations in Power BI

- Working with basic visualizations: Bar charts, line charts, pie charts, etc.
- Using slicers, filters, and cross-filtering
- Customizing visualizations: Formatting, tooltips, and labels
- Introduction to Power BI visuals marketplace

Creating Interactive Dashboards

- Designing interactive dashboards with multiple visuals
- Adding and configuring slicers and filters
- Using bookmarks and drill-through functionalities
- Creating responsive and mobile-optimized dashboards

Week 4: Advanced Data Analytics

Advanced DAX (Data Analysis Expressions)

- ➤ Introduction to DAX: Syntax and functions
- Using DAX for calculated columns and measures
- Time intelligence functions in DAX
- Advanced calculations with DAX (YTD, MTD, QTD)

Advanced Data Modeling

- Creating and managing hierarchies
- Working with complex data models: Many-to-many relationships, role-playing dimensions
- Implementing row-level security (RLS)

Advanced Visualization Techniques

- ➤ Using advanced visuals: Maps, scatter plots, waterfall charts, etc.
- ➤ Introduction to custom visuals and themes
- Working with KPI and gauge visuals
- Using What-If parameters for scenario analysis

Week 5: Power BI Service and Collaboration

Publishing and Sharing Reports

- Publishing reports to Power BI Service
- Understanding workspaces and datasets in Power BI Service
- Sharing reports and dashboards with others
- Configuring report refresh schedules

Collaboration in Power BI

- Working with Power BI Apps
- Creating and managing Power BI reports in the service
- Introduction to Power BI Embedded and sharing options

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Power BI and Excel Integration

- Using Power BI Publisher for Excel
- Analyzing Power BI data in Excel
- ➤ Importing Excel workbooks into Power BI

Week 6: Real-world Projects and Case Studies

Case Study 1: Sales Analysis Dashboard

- Building a sales analysis report and dashboard
- Analyzing sales trends, performance metrics, and key indicators

Case Study 2: Marketing Campaign Effectiveness

- Creating a report to analyze the effectiveness of marketing campaigns
- Using DAX to calculate campaign ROI and conversion rates

Capstone Project

- Defining a real-world problem statement
- Collecting and preparing the necessary data
- Building a complete Power BI report or dashboard
- Presenting the findings to stakeholders

Week 7: Performance Optimization and Best Practices

Optimizing Power BI Reports

- ➤ Best practices for optimizing performance
- Reducing load times and improving report responsiveness
- Optimizing data models and DAX queries

Best Practices in Data Analytics

- Data governance and management in Power BI
- Ensuring data accuracy and reliability
- Ethical considerations in data analytics

Introduction to Power BI Advanced Features

- Introduction to Power BI Report Builder (Paginated Reports)
- ➤ Introduction to Power BI Dataflows
- ➤ Introduction to Power BI Premium and its features



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Week 8: Review, Assessment, and Next Steps

Review of Key Concepts

- Recap of all topics covered
- Q&A sessions to clarify doubts

Final Assessment

- Practical test on building a complete Power BI solution
- > Evaluation of the capstone project

Next Steps in Power BI and Data Analytics

- Overview of advanced topics: Power BI with Python/R, AI in Power BI
- Career opportunities in data analytics
- ➤ Resources for further learning and certification paths

Duration Assigned for Internship:- 2 Months

Additional Resources and Activities (Common for all Internships Options)

- Weekly coding challenges or exercises
- Online resources and tutorials for self-study
- Mentorship and guidance throughout the internship
- Evaluation Criteria
- Completion of assignments and projects
- Regular progress updates and participation in discussions
- Code quality and adherence to best practices

Special Module for Skill Enhancement During Internships

- ➤ Job Assistance Guidance
- Mock Up Sessions
- Problem Solving Skills
- Decision Making Skills
- > Tips to Crack Interview
- Email and Resume Building Sessions

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