


# HR Analytics Certification Program





300+ Hiring Partners ✓

175% Average Salary Hike ✓

Hybrid Model for Project Sessions ✓

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# Context

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**2cr**

worth  
scholarships  
awarded



**600+**

professionals  
secured jobs  
after a career  
break



**30k+**

Trusted  
Learners

## About The Program

Our HR Analytics program offers practical training to enhance careers in this field. Through real-world case studies and industry knowledge, you'll gain the skills needed for success. You'll analyse HR data to make better decisions in areas such as talent acquisition and employee engagement, optimising human capital for a competitive edge. We offer affordable and relevant education to empower India's workforce.

“

**We exist to provide accessible, reasonable, and industry-relevant education that empowers India's workforce to grow and develop.**



4.79/5



4.66/5



4.8/5



Thousands of student reviews on Switchup,  
Course Report, Google and more

# Program Highlights



## Industry-Relevant & Updated Syllabus

Learn the industry's latest tools, techniques & trends. Gain hands-on experience developing various apps.



## 360 Degree Knowledge Building

Develop practical skills through real-world projects and assignments



## 1:1 Dedicated Mentorship

Personalized learning experience from experienced industry professionals.



## Multiple Career Opportunities

Boost hr analytics career and land roles as hr data analyst, hr manager, etc



# Why Learn HR Analytics?



60% rise in  
data science jobs



250% highest  
salary hike



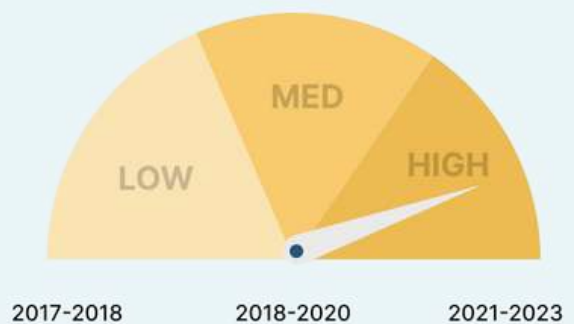
300+ partner  
companies

Average annual salary of HR Analyst  
by experience



\*\* Avg Salary in Lakhs

Demand for HR analytics skills  
increased by **375%**



HR Analytics popularity in last 5 years

## Placement Report

**30K+**

Trusted Learners

**9K+**

Successfully Placed

**50K+**

Job Interviews Cracked

Book a free consultation with expert

Contacts Us

# Program Details

## ELIGIBILITY

- ✓ **Working professional** having more than 6 months of experience in any domain (Technical/Non-Technical)

### Qualification:

BE/B.Tech (from any branch), BBA/MBA, MCA/M.Tech, B.Com, B.Sc  
(in any branch)



**Course duration : 200+ hours**

**Weekday Batch : 5 months**

**Monday - Friday : 2 hrs/day**

**Weekend Batch : 7 months**

**Saturday - Sunday: 3.5 hrs/day**

## About instructors:

Experienced software development instructors share valuable practical knowledge and effective solutions, preparing students for success in the industry.

### Total Fees:

₹ 89,000/- + 18% GST

**₹ 1,05,020/-**

### EASY EMI

**₹ 8,752/month**

Financing partners



# What Our Alumni's Say



**Shravanthi A**

Data Scientist



Learnbay has helped me a lot to learn data science applications in the e-commerce industry. The live class concept was really helpful in receiving proper DS training. Thanks to all my mentors and the placement team.



**230%**  
Salary Hike



**Ritesh Kumar**

Associate Consultant



I knew nothing about data science before I joined Learnbay. But through a variety of instructors, I steadily developed my notion and received solid knowledge and conceptual training in data science with hike of 150%.



**150%**  
Salary Hike



**Saurabh Kumar**

Data Scientist & Statistician



When I joined Learnbay I did not have any knowledge apart from the very basics. I gradually build my concept via various trainers and get trained in data science with strong knowledge/concepts.



**135%**  
Salary Hike

# What Our Alumni's Say



**Preksha Mishra**

Lead Data Scientist

**HCL**

The course structure is excellent with emphasis on concept building and tools & software at the same time. The support team is excellent and supportive and quite agile to respond to doubts.



**140%**  
Salary Hike



**Mohd. Israr**

Data Scientist

Thanks to the Learnbay data science course & excellent guidance, I was able to ace the TCS interview and secure a job with a 210% pay raise. The real-world time projects helped me develop my concepts as a data scientist.



**210%**  
Salary Hike



**Sweekrithi shetty**

Learnbay stands out with expert-led courses that offer practical and up-to-date content. Hands-on learning and ample resources make it accessible for anyone seeking to upskill in AI, ML, or data science. Learnbay is an excellent choice to learn and grow in these rapidly-evolving fields.



# Learning Path





*World's leading certifications*



### IBM Course Certificate

Complete your training with the globally recognized certificate.



### Microsoft Course Certificate

Achieve professional growth & increase earning potential with Microsoft certification

- ✔ Obtain an internationally recognized certificate through training
- ✔ Enhance your IT profile with IBM's certification
- ✔ Boost job opportunities and earnings with Microsoft's certification

# Career Service



## Get 1 year of Job and Placement support

Unleash your career potential with 1 year of unlimited job access, interview support, and profile review.

## Get 3 mock interviews with industry leaders

Master the art of HR analytics and stay ahead of the curve with mockups and industry insights



## Resume build up session

Craft a powerful resume showcasing your expertise in hr to stand out from the competition.

## Get 5-8 interview calls

Receive 5-8 interview calls from a diverse pool of interested employers/recruiters.



# Program Syllabus

## HRM

### Introduction to Strategic Human Resource Management using Data Analytics

- Data analytics in SHRM involves using statistical and analytical methods to analyze data related to HR functions such as recruitment, retention, training and development, compensation, and performance management.
- Fundamentals of Data Analytics
- Understanding organizational development based on analytics
- Strategies of HR leadership in a data driven way
- The digitized people management process
- Importance of data analytics in people management

### Overview of Domains

- Introduction to BFSI, Marketing, and Sales domains
- Importance of analytics in these domains
- Tools and techniques for process automation
- Current trends and challenges in these domains

**Case studies:** This section includes case studies from various industries and domains to illustrate the application of business analytics in real-world scenarios.

### EXCEL

### Module 1 (30 hours)

#### Basic Excel Functions

- Creating a New Workbook
- Navigating in Excel
- Moving the Cell Pointer
- Using Excel Menus
- Using Excel Toolbars: Hiding, Displaying, and Moving Toolbars
- Entering Values in a Worksheet and Selecting a Cell Range
- Previewing and Printing a Worksheet
- Saving a Workbook & Re-opening a saved workbook

#### Managing Worksheets

- Switching Between Sheets in a Workbook
- Inserting and Deleting Worksheets
- Renaming and Moving Worksheets
- Protecting a Workbook
- Hiding Columns, Rows, and Sheets
- Splitting and Freezing a Window
- Inserting Page Breaks
- Advanced Printing Options

#### Editing and Managing Cell Data

- Entering Date Values and using AutoComplete
- Editing, Clearing, and Replacing Cell Contents

#### Formatting Worksheets

- Creating Headers, Footers, and Page Numbers
- Adjusting Page Margins and Orientation
- Adding Print Titles and Gridlines, rows to repeat at top of each page
- Formatting Fonts & Values
- Adjusting Row Height and Column Width
- Changing Cell Alignment
- Adding Borders
- Applying Colors and Patterns
- Using the Format Painter
- Merging Cells, Rotating Text
- Using AutoFill

#### Editing and Managing Cell Data

- Cutting, Copying, and Pasting Cells
- Moving and Copying Cells with Drag and Drop
- Collecting and Pasting Multiple Items
- Using the Paste Special Command
- Inserting and Deleting Cells, Rows, and Columns
- Using Undo, Redo, and Repeat
- Checking Your Spelling
- Finding and Replacing Information
- Inserting Cell Comments



### EXCEL

#### Module 1 (30 hours)

##### Basic Formulas and Functions

- Creating a Basic Formula
- Cell Referencing
- Calculating Value Totals with AutoSum
- Editing & Copying Formulas
- Fixing Errors in Your Formulas
- Formulas with Several Operators and Cell Ranges
- Conditional Formatting

##### Creating Charts

- Creating & Working with Charts
- Creating a Chart
- Moving and Resizing a Chart
- Formatting and Editing Objects in a Chart
- Changing a Chart's Source Data
- Changing a Chart Type and Working with Pie Charts
- Adding Titles, Gridlines, and a Data Table
- Formatting a Data Series and Chart Axis
- Using Fill Effects

##### Advanced Functions

- Working with the Forms Menu
- Sorting, Subtotaling & Filtering Data
- Copy & Paste Filtered Records
- Using Data Validation

### CASE STUDY

#### HR Efficiency Analysis:

- This case study involved the use of advanced Excel and VBA to analyze a company's HR data. The goal of the analysis was to identify any areas in which the company was losing money due to inefficient HR practices.

#### Employee Performance Analysis:

- This case study involves the use of advanced Excel and VBA to analyze a company's employee performance. The goal of the analysis was to identify employees who were underperforming and to identify areas in their job performance that were lacking.

### STATISTICS

### Module 2 (30 hours)

#### R programming fundamentals

- Data types in R
- Functions and arguments
- Manipulating Data
- Data transformation with R - the Dplyr package
- Building a histogram, bar chart, box and whiskers plot with ggplot2

#### Descriptive Statistics

- Measures of central tendency (mean, median, mode)
- Measures of dispersion (SD, variance, range, IQR)
- Symmetry/shape measures (skewness, kurtosis)
- Box plot and outliers
- Covariance and correlation

#### Probability

- Random experiments and events (mutually exclusive, joint, dependent, independent)
- Probability rules
- Bayes' theorem
- Probability distributions (types: discrete, continuous)

#### Statistics

- Variables (quantitative, categorical, discrete, continuous)
- Population, sample, sample size
- Data visualization basics and R code (histogram, bar chart, frequency distribution)

#### Sampling Techniques

- Probabilistic & non-probabilistic sampling
- Simple random, systematic, cluster, stratified, convenience, quota, snowball, judgement

#### Probability

- Binomial distribution
- Normal distribution (properties, Z table, empirical rule, central limit theorem)

#### Inferential Statistics:

- Introduction to inferential statistics
- Sampling techniques (probabilistic and non-probabilistic)
- Point and interval estimation

### STATISTICS

#### Module 2 (30 hours)

##### Hypothesis testing

- Definition, need, significance level, null and alternative hypothesis.
- One/two-tailed tests, critical value, rejection region, Type I/II errors
- One sample tests (Z, t, proportion)

##### Multivariate Analysis

- Principal Component Analysis (PCA)
- Factor Analysis
- Cluster Analysis

##### Bayesian Statistics

- Bayesian inference
- Posterior distribution
- Bayesian hierarchical models
- Markov Chain Monte Carlo (MCMC)

##### Experimental Design

- Types of experiments
- Randomized designs
- Matched-pair and Block designs
- Factorial designs
- Experimental units
- Control and treatment groups

##### Time Series Analysis

- Stationarity and Autocorrelation
- Forecasting methods

##### Linear Algebra

- Vectors (plotting, norm, addition, scalar multiplication, dot product, projection)
- Matrices (indexing, types, addition, multiplication, transpose, determinant, trace)

### CASE STUDY

### Module 2 (30 hours)

#### Performance Review Analysis

- Performance review analysis is an important application of statistics in HR analytics. This technique is used to evaluate the performance of employees by using a variety of metrics such as attendance, work efficiency, customer feedback, and productivity. Statistical analysis of these metrics helps to identify areas of improvement and track progress over time.

#### Salary Analysis

- Salary analysis is another important application of statistics in HR analytics. This technique is used to analyze the salaries of employees in different roles, departments, and levels. Statistical analysis of salary data helps to identify discrepancies in salary and devise strategies to ensure fairness and equity in compensation.



### SQL

### Module - 3 (14 hours)

#### SQL and RDBMS

- RDBMS And SQL Operations.
- Single Table Queries - SELECT, WHERE,
- ORDER BY, Distinct, And, OR
- Multiple Table Queries: INNER, SELF,
- CROSS, and OUTER, Join, Left Join, Right
- Join, Full Join, Union

#### NoSQL, HBase & MongoDB

- NoSQL Databases
- Introduction to HBase
- HBase Architecture, HBase
- Components, Storage Model of HBase
- HBase vs RDBMS
- Introduction to Mongo DB, CRUD
- Advantages of MongoDB over RDBMS

#### Programming with SQL

- Mathematical Functions
- Variables
- Conditional Logic
- Loops
- Custom Functions
- Grouping and Ordering

#### Advance SQL

- Advance SQL Operations
- Data Aggregations and summarizing the data
- Ranking Functions: Top-N Analysis
- Advanced SQL Queries for Analytics

#### JSON Data & CRUD

- Basics and CRUD Operation
- Databases, Collection & Documents
- Shell & MongoDB drivers
- What is JSON Data
- Create, Read, Update, Delete
- Finding, Deleting, Updating, Inserting Elements
- Working with Arrays
- Understanding Schemas and Relations

#### Programming with SQL

- Partitioning
- Filtering Data
- Subqueries

## SQL

### Module - 3 (14 hours)

#### Assignments

- Working with multiple tables
- Practice Joins, Grouping and Subqueries
- Using GROUP BY and HAVING Clauses
- Practice Aggregation Queries

### MongoDB

### Module - 04 (14 hours)

#### Introduction to MongoDB

- What is MongoDB
- Characteristics and Features
- MongoDB Ecosystem
- Installation process
- Connecting to MongoDB database
- Introduction to NoSQL
- Introduction of MongoDB module
- What are Object Ids in MongoDB

#### Assignment

- Obtain the data in the format you want by formulating queries that are both effective and high-performing.

#### MongoDB (Advance)

- MongoDB Use cases
- MongoDB Structures
- MongoDB Shell vs MongoDB Server
- Data Formats in MongoDB
- MongoDB Aggregation Framework
- Aggregating Documents
- Working with MongoDB Compass & exploring data visually
- Understanding Create, Read, Update, Delete
- Schemas & Relations
- Document Structure
- Working with Numeric Data
- Working on Scheme Designing

#### Tools covered



### TABLEAU

### Module 1 (24 hours)

#### Introduction to Tableau

- Overview of Tableau and its key features
- Introduction to data visualization concepts and techniques
- Understanding the Tableau interface and its main components

#### Creating basic visualizations using Tableau, including

- Bar chart
- Line chart
- Scatter plot
- Heat map
- Different chart types and features in Tableau, such as:
- Tree maps
- Bubble charts
- Waterfall charts
- Applying best practices for formatting, labeling, and annotations in Tableau

#### Forecasting and Clustering in Tableau

- Using forecasting and clustering techniques in Tableau

#### Connecting to Data Sources

- Connecting to different data sources and importing data into Tableau
- Working with different data types and formats
- Cleaning and transforming data in Tableau
- Creating Visualizations in Tableau

#### Visual Analytics in Tableau

- Understanding visual analytics concepts and techniques
- Sorting and grouping data in Tableau
- Using sets and set actions in Tableau
- Filtering data in Tableau, including interactive filters

#### Forecasting and Clustering in Tableau

- Creating calculated columns and using them in visualizations, such as: Histograms, Box plots
- Using Tableau's trend lines to analyze data

### TABLEAU

#### Module 1 (24 hours)

##### Dashboard and Stories in Tableau

- Creating interactive dashboards in Tableau
- Using sheets and objects to design effective dashboards
- Adding filters, legends, and quick filters to dashboards
- Creating stories in Tableau to present data in a narrative format

##### Mapping in Tableau

- Using Tableau's mapping capabilities to visualize data on maps
- Plotting latitude and longitude data using Tableau maps
- Creating custom geocoding in Tableau
- Creating polygon maps and using WMS and background images for maps

### CASE STUDY

##### Generating reports on employee performance using Tableau

- Tableau can be used to generate reports on employee performance by creating visualizations using data from performance reviews or evaluation forms. These visualizations can be used to compare performance against company goals, identify areas of improvement, and track progress over time.



### PowerBI

### Module 2 (30 hours)

#### Introduction to Power BI

- What is Power BI and why use it?
- Getting familiar with the Power BI interface
- Understanding data sources and connections

#### Data Visualization and Exploration

- Creating basic charts (bar, line, pie, etc.)
- Enhancing visualizations with formatting and design
- Using interactive features (filters, slicers, drill down/up)
- Creating custom visuals with Power BI visuals marketplace

#### Power BI Service and Collaboration

- Publishing reports to the Power BI service
- Sharing and collaborating with others
- Creating and managing workspaces
- Using Power BI mobile app

#### Data Transformation and Modeling

- Importing and cleaning data
- Transforming data with Power Query Editor
- Creating calculated columns and measures
- Creating relationships between tables

#### Advanced Analytics with DAX

- Understanding DAX formulas and functions
- Creating complex calculations and expressions
- Using time intelligence functions

#### Power BI Integration with other tools

- Integrating Power BI with Excel
- Using Power BI with SharePoint and Teams
- Connecting to other data sources (Azure, SQL Server, etc.)

### PowerBI

#### Generating reports on recruitment trends using PowerBI

- PowerBI can be used to generate reports on recruitment trends by creating visualizations using data from job postings or recruitment processes. These visualizations can be used to compare recruitment efforts against company goals, identify areas of improvement, and track progress over time.

### DATA SCIENCE & AI

### Module 1 (30 hours)

#### Introduction to Data Science and AI

- Definition, history, and applications.
- Key components of Data Science and AI (data, algorithms, computing power).
- Popular programming language (R) and development tools (Jupyter Notebook, Spyder)

#### Natural Language Processing (NLP)

- Text processing techniques (tokenization, stemming, lemmatization).
- Sentiment analysis, document classification, and information retrieval

#### Popular ML Libraries

- scikit-learn, XGBoost, LightGBM, TensorFlow, Keras, PyTorch.
- Model optimization techniques (Grid search, Random search, Bayesian optimization)

#### Machine Learning Fundamentals

- Supervised, unsupervised, and reinforcement learning.
- Bias-variance tradeoff, overfitting, and underfitting.
- Model selection and evaluation metrics (accuracy, precision, recall, F1 score, ROC curve, AUC).
- Hyperparameter tuning and model optimization techniques

#### Advanced NLP Techniques

- Named Entity Recognition (NER), Topic Modeling, Text Generation.
- Pre-trained language models (BERT, GPT, XLNet) and Transfer Learning in NLP

#### Tools covered



### CASE STUDY

#### Image Classification

- Develop an AI model that can accurately classify images into different categories. Use popular datasets like MNIST or CIFAR-10 and a machine learning library like TensorFlow or PyTorch.

#### Sentiment Analysis

- Develop an AI model that can classify text into positive, negative, or neutral sentiment. Use popular datasets like IMDb or Twitter sentiment analysis dataset and a machine learning library like scikit-learn or Keras

#### Decision Tree Analysis for Employee Management

- Use decision trees to identify the best course of action for a given situation, such as whether to terminate an employee or provide additional training

#### Chatbot

- Build an AI-powered chatbot that can communicate with users and respond to their queries in a natural language. You can use a natural language processing library like NLTK or SpaCy and a conversational AI platform like Dialogflow or Rasa

#### Employee Outcome Prediction and Optimization

- Predict employee outcomes such as performance, turnover, or job satisfaction, optimize employee scheduling or to develop more effective training programs

### Deployment AWS+Azure

### Module - 2 (10 hours)

#### Introduction to AWS and Azure Machine Learning Services

- Overview of AWS SageMaker and Azure Machine Learning
- Key features and benefits of using these platforms
- Understanding different types of machine learning algorithms and use cases

#### Data Preparation and Feature Engineering

- Understanding the data requirements for machine learning models (e.g. structured vs unstructured data, data size, data quality)
- Data cleaning and preprocessing techniques (e.g. missing value imputation, feature scaling, encoding categorical variables)
- Feature selection and engineering techniques (e.g. PCA, feature importance)

#### Setting up the Environment

- Creating AWS and Azure accounts
- Configuring the required tools and SDKs (e.g. AWS CLI, Azure CLI, Azure PowerShell)
- Understanding the infrastructure requirements for training and deploying models (e.g. EC2 instances, GPU instances, Azure ML Compute)

#### Model Training and Evaluation

- Choosing the right machine learning algorithm and model (e.g. regression, classification, clustering)
- Training models using AWS SageMaker and Azure Machine Learning (e.g. using built-in algorithms, custom code)
- Evaluating model performance and tuning hyperparameters (e.g. cross-validation, hyperparameter optimization)



## Deployment AWS+Azure

## Module - 2 (10 hours)

### Model Deployment and Management

- Deploying trained models on AWS SageMaker and Azure Machine Learning (e.g. creating endpoints, batch inference)
- Monitoring model performance and managing versions (e.g. model drift, A/B testing)
- Integration with other services and applications (e.g. AWS Lambda, Azure Functions)
- Feature engineering techniques (e.g. PCA, feature importance)

### Advanced Topics in Machine Learning on AWS and Azure

- Deep learning techniques and architectures (e.g. neural networks, convolutional neural networks, recurrent neural networks)
- Natural Language Processing (NLP) use cases (e.g. text classification, sentiment analysis, language translation)
- Understanding the costs and pricing models for machine learning on AWS and Azure (e.g. instance pricing, storage pricing, model deployment pricing)

# Real-time Projects

1

Domain: HR



## Workforce Planning at GE

GE uses predictive analytics to forecast future talent needs and identify gaps in their workforce. By analyzing HR data such as employee demographics, attrition rates, and skills, GE can make informed decisions about hiring and workforce planning.

---

Predictive analytics, Demographic analysis, Skills gap analysis

2

Domain: HR

**Deloitte.**

## Performance Management at Deloitte

Deloitte uses a data-driven approach to performance management. The company utilizes analytics to measure employee performance, provide feedback, and identify areas for improvement

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Performance metrics, Feedback analysis, Continuous performance management.

3

Domain: HR



## Succession Planning at AT&T

AT&T uses analytics to identify high-potential employees and develop them for future leadership roles. By analyzing HR data such as performance metrics, skills, and career aspirations, AT&T can create targeted development plans for its employees.

---

Performance metrics, Demographic analysis

# Real-time Projects

4

Domain: HR

NETFLIX

## Compensation Analytics at Netflix

Netflix uses analytics to determine employee compensation packages. By analyzing HR data such as market benchmarks, employee performance, and tenure, Netflix can offer compensation packages that are competitive and fair.

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Compensation analysis, Market benchmarking, Performance analysis

5

Domain: HR

Google

## Diversity and Inclusion at Google

Google uses analytics to monitor and improve diversity and inclusion within the company. By analyzing HR data, such as employee demographics and hiring practices, Google can identify areas where it needs to improve diversity and create initiatives to promote inclusion

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Diversity metrics, Demographic analysis, Inclusion programs



## Contact Us

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