MSBI Certification Training

In Collaboration with **Microsoft**

IntelliPaat

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About the Program

Intellipaat's Microsoft Business Intelligence certification training, i.e., MSBI training, enables you to master MSBI tools, such as SSIS, SSRS, and SSAS, using SQL Server. This MSBI training will also help you clear the MCSE: Business Intelligence Certification exam. As part of this training, you will learn data integration and the creation of reports, dashboards, and cubes for faster report generation. Along with this online classroom training, you will receive an additional course from Microsoft, Analyzing Data with SQL Server Reporting Services.

Collaborating with Microsoft

Microsoft is one of the largest organizations in terms of inventing creative tools for various purposes. Experts from Microsoft and other top MNCs will offer you their understanding and knowledge in the field through this online certification.

Moreover, you will also get deep insights into the concepts and gain hands-on experience by working on industry-specified assignments.

Benefits for students from Microsoft:

- Industry-recognized Microsoft certification
- Real-time projects and exercises

About Intellipaat

Intellipaat is one of the leading e-learning training providers with more than 600,000 learners across 55+ countries. We are on a mission to democratize education as we believe that everyone has the right to quality education.

Our courses are delivered by subject matter experts from top MNCs, and our world-class pedagogy enables learners to quickly learn difficult topics in no time. Our 24/7 technical support and career services will help them jump-start their careers in their dream companies.

Key Features

30 HRS INSTRUCTOR-LED TRAINING

30 HRS SELF-PACED TRAINING

60 HRS REAL-TIME PROJECT WORK

LIFETIME ACCESS

24/7 TECHNICAL SUPPORT

INDUSTRY-RECOGNIZED CERTIFICATION

JOB ASSISTANCE THROUGH 80+ CORPORATE TIE-UPS

FLEXIBLE SCHEDULING

Career Support

SESSIONS WITH INDUSTRY MENTORS
Attend sessions from top industry experts and get guidance on how to boost your career growth

MOCK INTERVIEWS
Mock interviews to make you prepare for cracking interviews by top employers

GUARANTEED INTERVIEWS & JOB SUPPORT
Get interviewed by our 400+ hiring partners

RESUME PREPARATION
Get assistance in creating a world-class resume from our career services team

Why take up this course?

- Worldwide Business Intelligence and Analytics market to grow to US$22.8 billion in revenue in the next 2 years – Gartner

- The average salary of a Microsoft BI Professional is US$107,000 – Indeed

Today, the demand for SQL Server Business Intelligence professionals is increasing, and there is a real need for expertise in SSAS, SSIS, and SSRS. Hence, with this tutorial, you can pass the MCSE: Business Intelligence Certification exam and take on highly coveted Microsoft BI jobs for a great future.

Who should take up this course?

- Software Architects, ETL Developers, and Data Analysts

- Business Intelligence Professionals and people looking to upskill themselves in MSBI

Program Curriculum

MSBI Training Course Content

MSBI SSIS Course Content

- **WHAT IS BI?**

  Introduction to Business Intelligence, understanding the concept of data modeling and data cleaning, learning about data analysis, data representation, and data transformation

- **ETL OVERVIEW**

  Introduction to ETL, various steps involved Extract, Transform, and Load, using a user's email ID to read a flat file, extracting the user ID from the email ID, and loading the data into a database table

- **WORKING WITH CONNECTION MANAGERS**

  Introduction to Connection Managers, logical representation of a connection, various types of Connection Managers, flat file, database, understanding how to load faster with OLE DB, comparing the performance of OLE DB and ADO.net, learning about Bulk Insert, working with Excel Connection Managers, and identifying the problems

- **DATA TRANSFORMATIONS**

  Data transformation, converting data from one format to another, understanding the concepts of character map, data column and copy column transformation, import and export column transformation, script and OLEDB command transformation, understanding row sampling, aggregate and sort transformation, and percentage and row sampling

- **ADVANCED DATA TRANSFORMATION**

  Pivot and unpivot transformation, audit and row count transformation, split and join transformation, lookup and cache transformation, integrating with Azure Analysis Services, elastic nature of MSBI to integrate with the Azure cloud service, scale out

deployment option for MSBI, working with cloud-borne data sources and query analysis, scaling out the SSIS package, deploying for tighter windows, working with larger amount of data sources, SQL Server vNext for enhancing SQL Server features, and more choices of development languages and data types both on-premises and in the cloud

- **SLOWLY CHANGING DIMENSIONS**

  Understanding data that slowly changes over time, learning the process of how new data is written over the old data, best practices, detailed explanation of three types of SCDs – Type1, Type2, and Type3, and their differences

- **OVERVIEW OF THE FUZZY LOOKUP TRANSFORMATION & LOOKUP & TERM EXTRACTION**

  Understanding how fuzzy lookup transformation varies from lookup transformation and the concept of fuzzy matching

- **CONCEPTS OF LOGGING & CONFIGURATION**

  Learning about error rows configuration, package logging, defining package configuration, and understanding constraints and event handlers

MSBI SSRS Course Content

- **INTRODUCTION TO SSRS**

  Get introduced to the SSRS architecture, components of SSRS report building tool, and learning about the data flow in different components

- **MATRIX & TABLIX OVERVIEW**

  Understanding the concepts of Matrix and Tablix, working with a text box, learning about formatting, row/column grouping, understanding sorting, formatting, and the concepts of header, footer, totals, subtotals, and page breaks

- **PARAMETERS & EXPRESSION**

  Learning about parameters, filter and visibility expression, understanding drill-through and drill-down, defining variables, and custom code

- **REPORTS & CHARTS CREATION**

Introduction to various aspects of bar chart, line chart, combination chart, shape chart, sub-reports, the integration of Power Query and M language with SSRS, working with additional data sources in MSBI, rich transformation capabilities addition to MSBI, and reusing M functions build for PBIX in SSRS

- **DASHBOARD BUILDING**

Building a dashboard with Sparklines, data bars, map charts, and gauge charts, drilling into reports, and the basics of ad-hoc reporting

- **REPORTS & AUTHENTICITY**

Understanding report cache, authorization, authentication, and report snapshot, and learning about subscriptions and site security

MSBI SSAS Course Content

- **GETTING STARTED WITH SSAS**

Understanding the concept of multidimensional analysis, understanding SSAS architecture and benefits, learning what cube is, working with tables and OLAP databases, understanding the concept of data sources, working with dimension wizard, understanding dimension structure, attribute relationships, and flexible and rigid relationships

- **STRUCTURES & PROCESSES**

Learning about the process dimension, the process database, creation of cube, understanding the cube structure, cube browsing, defining various categories, product key and customer key, column naming, processing and deploying a cube, and report creation with a cube

Hands-on Exercise: Create a cube and name various columns, deploy a cube after applying keys and other rules, and create reports with a cube

- **TYPE OF DATABASE RELATIONSHIP**

Understanding data dimensions and their importance, various relationships, regular, referenced, many-to-many, and fact, and working on data partitions and data aggregations

- **SSAS CUBE**

Learning about SSAS cube, various types of cubes, the scope of cubes, and comparison with data warehouse

- **CUBE: OPERATIONS & LIMITATIONS**

Various operations on cube, the limitations of OLAP cubes, and the architecture of in-memory analytics and its advantages

- **CUBE & IN-MEMORY ANALYTICS**

Deploying cube with existing data warehouse capabilities to get self-service Business Intelligence and understanding how in-memory analytics works

Hands-on Exercise: Deploy cube to get self-service Business Intelligence

- **DATA SOURCE VIEW**

Logical model of the schema used by the cube, components of cube, and understanding named queries and relationships

- **DIMENSIONS**

An overview of the dimensions concept, describing the attributes and attributes hierarchies, and understanding key/value pairs, metadata reload, logical keys, and role-based dimensions

Hands-on Exercise: Create role-based dimensions and use attributes hierarchies

- **MEASURES & FEATURES OF CUBE**

Understanding the measure of cube, analyzing the measure, exploring the relationship between measure and measure group, and cube features and dimension usage

- **MEASURES & FEATURES OF CUBE (CONT.)**

Working with cube measures, deploying analytics, understanding the key performance indicators, deploying actions and drill-through actions on data, and working on data partitions, aggregations, translations, and perspectives

Hands-on Exercise: Work with cube measures, deploy analytics, deploy actions and drill-through actions on data, and make data partitions

- **WORKING WITH MDX**

Understanding the multidimensional expressions language, working with MDX queries for data retrieval, and working with clause, set, tuple, and filter conditions in MDX

Hands-on Exercise: Apply clause, set, and filter conditions in MDX query to retrieve data

- **FUNCTIONS OF MDX**

  Learning about MDX hierarchies, the functions used in MDX, ancestor, ascendant, and descendant functions, and performing data ordering

  Hands-on Exercise: Create MDX hierarchies and perform data ordering in the ascending order and in the descending order

- **DAX LANGUAGE**

  Data Analysis Expressions (DAX), using the EVALUATE and CALCULATE functions, filtering DAX queries, creating calculated measures, and performing data analysis using DAX

  Hands-on Exercise: Use the EVALUATE and CALCULATE functions, filter DAX queries, create calculated measures, and perform data analysis using DAX

- **BI SEMANTIC MODEL**

  Designing and publishing a tabular data model and designing measures relationships, hierarchies, partitions, perspectives, and calculated columns

  Hands-on Exercise: Design and publish a tabular data model and design measures relationships, hierarchies, partitions, perspectives, and calculated columns

- **PLAN & DEPLOY SSAS**

  Configuring and maintaining SQL Server Analysis Services (SSAS), Non-union Memory Architecture (NUMA), monitoring and optimizing performance, SSAS tabular model with vNext, Excel portability, importing model from Power BI Desktop, importing a Power Pivot model, and bidirectional cross-filtering relationship in MSBI

  Hands-on Exercise: Configure and maintain SQL Server Analysis Services (SSAS) and monitor and optimize performance

- **ANALYZING BIG DATA WITH MICROSOFT R**

Reading data with R Server from SAS, txt, or excel formats, converting data to XDF format, summarizing data, rxCrossTabs versus rxCube, extracting quantiles by using rxQuantile, visualizing data (rxSummary and rxCube, rxHistogram and rxLinePlot), processing data with rxDataStep, performing transforms using functions transformVars and transformEnvir, processing text using RML packages, building predictive models with ScaleR, and performing in-database analytics by using SQL Server

Hands-on Exercise: *Read data with R Server from SAS, txt or excel formats, convert data to XDF format, summarize data, extract quantiles by using rxQuantile, visualize data (rxSummary, rxCube, rxHistogram and rxLinePlot), perform transforms using functions transformVars and transformEnvir, build predictive models with ScaleR, and perform in-database analytics using SQL Server*

- **MICROSOFT COURSES (SELF-PACED COURSE)**

Analyzing data with SQL Server Reporting Services

Project Work

MSBI Projects

SSIS
In this project, you will create a data flow task to extract data from the XLS format and store it into the SQL database. You need to store the subcategory and category-wise sales in a table of the database. Through this project, you will be able to understand data flow, ODBC set up, Connection Manager, flat file connection, and various transformations.

SSRS

By using a Student Survey dataset, you have to extract meaningful insights by creating an SSRS report to show tabular visualization, matrix visualization, funnel chart, pie chart, scatter plot, drill-down, etc. You will get hands-on experience in using reporting services, expressions, parameters, charts, reports, transformations, etc.

SSAS

You will be working on data dimensions and cubes as part of this project. Using AdventureWorks DW database, you will have to build a cube to show the number of products there are for each color, the total sales, the amount for each currency, and the number of products there are for each product name. You will also get familiar with SSAS perspectives.

Case Study 1 - SSIS

As part of this case study, you will need to create the connection of OLDB and load the data in SQL Server from Excel. You will be working with transformations and learn how to create constants and events in a package. You will further get to work with data flow, term extraction, and lookup.

Case Study 2 - SSRS

The topics that you will be covering in this case study are reporting services, report creation, expressions and parameters, reports and authentication, and deployment. You will be using data connections, KPI, functions of data bars, etc. You will also learn how to pass a parameter from the main chart to the detail chart (pie).

Case Study 3 - SSAS

In this case study, you must know about data mart, measures and features of cube, data dimensions and cubes, KPIs, perspectives in SSIS and SSAS, etc.

Certification

After the completion of the course, you will get certificates from Microsoft and Intellipaat.

Success Stories

Omar Shehab

I really loved the quality of videos that came with Intellipaat's MSBI training. Since I had enrolled in the self-paced training, the quality of the videos was really crucial, and Intellipaat did a good job of delivering what they had promised.

Sudheer Neralla

Intellipaat's training and the support that they offered were really of top quality. I have only positive reviews for the entire MSBI online training. Great to learn at Intellipaat!

Sugandha Sinha

Intellipaat's course instructors were excellent and well-versed with their concepts. The support team solved all my queries within the promised 24 hours. They explained all topics and concepts well, and the course material was updated and included videos, exercises, etc. I would highly recommend Intellipaat to those who wish to excel in the IT field.

Vishal Pentakota

The best part of this course was the series of hands-on demonstrations that the trainer performed. Not only did he explain each concept theoretically, but he also implemented all those concepts practically. Great job! A must go for beginners.

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