SAS BI Content Development for SAS 9 exam

Information Consumer Reporting Applications

Use the SAS Add-In for Microsoft Office.

- Open and navigate a data source in MS Excel.
- Identify the different types of data sources that can be used with the SAS Add-In for Microsoft Office.
- Use the Quick Stats task to calculate basic statistics for a SAS data source.
- Use the Automatic Chart task to create charts and explore a SAS data source.
- View and interact with SAS results.

Use SAS Web Report Studio.

- Open existing reports, view reports, navigate reports.
- Build, customize, save and share reports.
- Create a new report using one of these methods: Edit mode, Report Wizard, a report template, open a source directly; open a stored process directly.

Use SAS Information Delivery Portal.

- View SAS BI Dashboards, SAS reports, and SAS stored processes, SAS publication channels, SAS packages using the SAS Information Delivery Portal.
- Create a new page and be able to share a page on the SAS Information Delivery Portal.

Data Management

Modify an existing SAS Information Map.

- Given a scenario where an information map is not providing necessary statistical information, modify data items to provide users with the desired data.

Create a New SAS BI Dashboard Indicator.

- Explain the relationship between indicators and their associated indicator data components.

Create data sources for reporting and analysis.

- Build a SAS Enterprise Guide project to read and combine data sources to create a new table.
- Identify the different types of data sources that can be used with SAS Web Report Studio.
- Use SAS OLAP Cube Studio to build an OLAP cube.
- Identify the required metadata permissions to view data.

Interpret permissions and file structures defined in metadata by the platform administrator.

- Explain the differences between metadata users, groups and roles.
- Identify which SAS applications support metadata roles.
- Explain the structure and use of the SAS Folders tree.
- Define the purpose and types of connection profiles.
- Determine metadata permission settings based upon the type of function to be accomplished.

Describe the metadata created and used by the SAS Platform.

- Define the purpose of a connection profile.
- Identify SAS Management Console interface components.
- Define default requirements for distributing reports using SAS Web Report Studio
- Explain the process of registering a library, including SAS and DBMS libraries.
- Describe how to prepare images for use in SAS Web Report Studio.

Create information map data sources.

- List valid data sources.
- List the requirements for data sources that can be used to create an information map.

Creating Information Maps

Utilize different data sources.

- Identify the steps required for creating an information map using SAS Information Map Studio.
- Given a particular scenario, determine the type of query language required to retrieve the data values from each type of data source.
- Detail the types of joins that are available when an information map contains more than one relational table.
- Explain how to automatically create relationships between a newly added data source and any existing data sources.
- Explain how to replace unresolved resources such as servers, libraries, tables and cubes if a resource becomes unresolved or if you want to change resources.

Use filters and the prompting framework to dynamically subset data.

- Define the types of filters that are available for subsetting data in an information map.
- List the different methods for creating a new filter in SAS Information Map Studio.
- Describe the ways that data items can be used in a filter.
- List the possible filter conditions.
- Given a particular scenario, determine the different filter values that could be used.
- Describe the options that might be available when you create a filter.
- List the steps to create a filters including a simple filter, a compound filter, and an identity-driven filter
- Describe the functionality provided by the filter combination section of the New Filter window.

Create prefilters to subset the information map data.

- Define and state the purpose of prefilters.
- Describe the two types of prefilters.
- Determine required steps to create a general prefilter.
- Determine required steps to create an authorization-based prefilter
- Given a scenario where users should see only sale totals for their country, identify the type of filter to create.

Building a SAS BI Dashboard Application

Build SAS BI Dashboard Components.

- Explain the process for designing dashboard components.
- Identify the steps required to build a dashboard.
- Describe the four data sources you can use when you define indicator data.
- When creating indicator data, use the Data Mapping tab to associate properties with data columns in the data source.
- Use an information map as a data source for an indicator object.
- Use an SQL query as the data source for an indicator data object.
- List the different components that are used to create dashboards.
- List the steps required to create an indicator.
- Explain the purpose of the indicator configuration icons.
- Describe how indicator display types aggregate data.
- Determine what you must define when you create and indicator.
- Set dashboard properties.

Build advanced SAS BI Dashboard Components.

- Define and create ranges.
- Identify the indicator types that support ranges.
- Add interactive features to dashboards such as adding interactions between indicators and linking indicators to other content.
- Describe the categories of indicator properties.
- Enable the zoom feature for an indicator or static content.

Building Stored Processes

Create a stored process from a SAS Enterprise Guide Project.

- Explain the steps to create a stored process.
- Identify the types of stored process metadata.
- List the types of servers that a stored process can run on.
- Explain the differences between creating a stored process from a single task versus all the tasks in a SAS Enterprise Guide project.
- Describe the extra step required to create a stored process from more than one of the tasks, but not from all of the tasks in a SAS Enterprise Guide project.
- Use the metadata LIBNAME engine to reference data library metadata definitions.

- When using the Create New Stored Process wizard, determine the code that you want the wizard to include in the stored process.

Create a stored process from a SAS Program.

- Identify the stored process code elements.
- Define the Create New Stored Process Wizard steps when you create a stored process from SAS code in SAS Enterprise Guide.
- Create a stored process from existing SAS code in SAS Enterprise Guide.
- List the applications that can be used to register stored process metadata.
- Create a stored process that writes directly to the _WEBOUT fileref.
- Explain how prompt values are resolved in the SAS code.

Add prompts to a stored process.

- In a SAS Enterprise Guide project, create prompts that are used when creating a SAS Stored Process.
- Identify the types of stored process prompts.
- Explain how to populate prompt values.
- Establish dependencies between prompts.
- Define the requirements for establishing prompt dependencies.

Create a stored process to provide a dynamic data source.

- Identify the requirements for a stored process providing a dynamic data source to an information map including the execution server, permissions, and the result capabilities.
- Create an information map using dynamic data source created by a stored process.

Define the macro variables generated for each prompt type.

- Describe how stored processes pass user values to the stored process code.
- Identify the macro variables that are created for different prompt types.
- Define and process a stored process parameter that can accept multiple values.

Create shared prompts.

- Identify the three types of prompt groups.
- List the steps to create a shared prompt.
- Define the attributes that can be customized when you use a shared prompt.
- Describe the process to unshare a shared prompt.

Utilizing Multidimensional (OLAP) Data Sources

Apply Online Analytical Processing concepts.

- Define OLAP terminology including cube, dimension, level, and hierarchy.

Build an OLAP cube with SAS OLAP Cube Studio.

- Use the Cube Designer Wizard to build a cube to perform such tasks as
  - define the data sources used to load a cube
  - specify any drill-through tables used by the cube
  - define the cube dimensions, levels, and hierarchies
  - select measures and measure details for the cube
  - specify member properties
  - configure aggregations.
- Modify existing OLAP code to perform actions such as adding a calculated measure, updating the cube and coalescing cube aggregations.
- List and describe the types of tables that can be used to define a SAS OLAP cube.
- Define the two available types of cube updating.

Build an information map from a SAS OLAP Cube.

- Describe the factors you should take into consideration when you build information maps with an OLAP data source.
- Explain what the MDX language is and when to use it.
- Create an information map that is based on an OLAP cube.

Note: All 23 main objectives will be tested on every exam. The 99 expanded objectives are provided for additional explanation and define the entire domain that could be tested.