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**1. Project Overview**

**1.1 Project Scope**

The project involves developing and maintaining Azure Functions to handle various data processing tasks. Key aspects of the project include:

* **Number of Azure Functions**: 6 to 7
* **Primary Functionalities**:
  + Reading data from SharePoint
  + Updating files in Azure Blob Storage containers
* **File Types**: Deviation Logs, Equipment data, and others

**1.2 Integration**

The system architecture integrates multiple components as follows:

* **Front End**: Power Apps
* **Intermediate**: SharePoint
* **Backend**: Azure Functions and Azure Blob Storage

**1.3 Environment Setup**

The project is structured across multiple environments:

* **Environments**: Dev, Stage, and Prod
* **Storage Accounts**: Each environment has separate Azure Blob Storage accounts and containers for PSP files

**2. Azure Function Details**

**2.1 Types of Azure Functions**

* **Deviation Log Function**: Updates deviation log files
* **Equipment Function**: Updates equipment data and manages file synchronization between SharePoint and Azure Blob Storage

**2.2 File Format**

* **File Type**: PSP files
* **Format**: CSV, separated by slashes
* **Example**: Deviation log files with 577 types and various field types

**2.3 Container Structure**

* **Organization**:
  + Containers are organized by factories
  + Each factory has folders for reference data (4 files) and manual entry (3 files)

**2.4 App Settings**

* **Configuration**: Stored in appsettings.json
  + Connection strings
  + Container names
  + Two types of containers per environment

**3. Technical Implementation**

**3.1 Sample File**

* **File Type**: CSV with pipe-separated values
* **Headers**: Reflect columns from SharePoint

**3.2 Adding a New Field**

To add a new field, such as "Run Type" to the Loss Categories file, follow these steps:

1. Modify the file header to include the new field
2. Update class definitions to match the new header
3. Adjust Azure Function code to handle the new field

**3.3 CSV Helper Library**

* **Purpose**: Used for reading and updating CSV files
* **Key Considerations**:
  + Modify header information as needed
  + Ensure case-sensitivity

**4. Deployment Process**

**4.1 Publishing Changes**

* **Method**: Use the published profile from Azure portal for deployment
* **Steps**:
  1. Download the profile from Azure portal
  2. Import the profile into Visual Studio for deployment
  3. Alternatively, use Visual Studio’s Publish option

**4.2 Profile Details**

* **Location**: Azure portal under Function App settings
* **Action**: Download and import the profile into Visual Studio

**5. Flow Updates and Testing**

**5.1 Flows Overview**

* **Total Flows**: 14
  + 7 for creating/updating PSP files in SharePoint
  + 7 for two-way updates between PSP files and SharePoint

**5.2 Flow Modification**

* **Adjustments**: Update flows to include new fields such as "Run Type" and adjust schemas accordingly

**5.3 Testing**

* **Verification**: Check if new field data appears in SharePoint
* **Functionality**: Ensure two-way updates are working

**5.4 Daily Jobs**

* **Current State**: Manual triggering of functions
* **Future Work**: Explore automation options for triggers

**6. Code Setup Transfer**

**6.1 Repository Access and Code Download**

* **Repository URL**: To be shared with Kalyan and Srikanth
* **Access**: Ensure both have access; Rohan has admin rights for permission granting
* **Cloning Instructions**: Use the "Clone" option in Visual Studio or Visual Studio Code

**6.2 Configuration Overview**

* **Configuration File**: appsettings.json
  + **Details**: Connection strings, container names
  + **Modification**: Adjust container names or connection strings as needed

**6.3 Code Structure and Functionality**

* **Structure**: Function Apps handling different operations
* **Example Functions**:
  + **Equipment Function**: Processes PSV data, triggered via HTTP POST requests
  + **Common Logic**: Includes file existence checks, reading, updating, and uploading CSV files

**6.4 Testing and Debugging**

* **Local Testing**: Use Postman for HTTP POST requests with sample data
* **Debugging**: Set breakpoints, test functions independently

**6.5 Documentation and Next Steps**

* **Documentation**: Ensure all changes are documented
* **Next Steps**: Update documentation, plan for next phases

**6.6 Additional Information**

* **Daily Scheduler Job**: Manages two-way updates between Azure Blob Storage and SharePoint/Power Apps
* **Environment Handling**: Logic varies by environment, managed through appsettings.json