# Install Microsoft.Graph module (if not already installed)

Install-Module Microsoft.Graph -Scope CurrentUser -Force

# Connect to Microsoft Graph with necessary scopes

Connect-MgGraph -Scopes "AuditLog.Read.All", "User.Read.All"

# Define the threshold (6 months ago)

$logonDate = (Get-Date).AddDays(-180)

Write-Host "Fetching all users..."

# Initialize an empty array for users

$AllUsers = @()

# Use a pager to fetch users in batches (to avoid memory overload for large directories)

$users = Get-MgUser -All -Property DisplayName, UserPrincipalName, AccountEnabled, SignInActivity

foreach ($user in $users) {

# Display the user being fetched

Write-Host "Fetching user: $($user.DisplayName) ($($user.UserPrincipalName))"

# Add user to the array

$AllUsers += $user

}

Write-Host "Finished fetching users. Total users fetched: $($AllUsers.Count)"

Write-Host "Filtering enabled users..."

# Filter only enabled users

$EnabledUsers = $AllUsers | Where-Object { $\_.AccountEnabled -eq $true }

Write-Host "Processing users to count active, inactive, and never logged in users..."

# Count active users (logged in within last 6 months)

$ActiveUsers = $EnabledUsers | Where-Object {

$\_.SignInActivity.LastSignInDateTime -and

(Get-Date $\_.SignInActivity.LastSignInDateTime) -ge $logonDate

}

# Count inactive users (no login in 6+ months)

$InactiveUsers = $EnabledUsers | Where-Object {

$\_.SignInActivity.LastSignInDateTime -and

(Get-Date $\_.SignInActivity.LastSignInDateTime) -lt $logonDate

}

# Count users who have never logged in (SignInActivity is null)

$NeverLoggedInUsers = $EnabledUsers | Where-Object { -not $\_.SignInActivity.LastSignInDateTime }

# Count totals

$TotalActive = $ActiveUsers.Count

$TotalInactive = $InactiveUsers.Count

$TotalNeverLoggedIn = $NeverLoggedInUsers.Count

$TotalEnabled = $EnabledUsers.Count

# Display summary

Write-Host "Total Enabled Users: $TotalEnabled"

Write-Host "Active Users (Last 6 Months): $TotalActive"

Write-Host "Inactive Users (No Login in 6+ Months): $TotalInactive"

Write-Host "Users with No Recorded Login: $TotalNeverLoggedIn"