# ORLOX

internship assignment

# M365 security reporting using Microsoft PowerBI

CONTACT

**Kristof Laerenbergh**

Veldkant 7, 2550 Kontich
info@orlox.be
www.orlox.be

# TABLE OF CONTENTS

# Description

Microsoft 365 is a complete package of cloud-based productivity and collaboration solutions used by businesses to improve their operations and communication. As organizations migrate to cloud-based solutions, the requirement for strong security measures has grown critical. Microsoft understands the need of protecting sensitive data and digital assets, which led to the creation of an integrated security framework inside Microsoft 365.

Microsoft 365 Security is intended to give a comprehensive strategy to protecting an organization's digital environment. This framework includes many levels of security, including as identity and access management, threat detection and response, data protection, and compliance. The capacity to create alerts based on real-time security events, anomalies, and possible threats is at the heart of Microsoft 365 Security.

The objective of this traineeship assignment is to provide trainees with hands-on experience in utilizing Microsoft Power BI to create insightful and visually appealing security reports using data from Microsoft 365. Trainees will learn how to extract, transform, and visualize security-related data to enhance an organization's security monitoring and decision-making processes.

# Deliverables

1. Explore a M365 environment with all security features enabled.
2. Explore the M365 graph API.
3. Create interactive, visually appealing security dashboards in Power BI that highlight key security metrics and insights.

# Possible Extensions

1. Create a multi-tenant security reporting dashboard.

# Project Methodology

**1. Project Kickoff:**

**Objective Definition:** The primary aim of this project is to equip you with the skills needed to create insightful security reports using Microsoft Power BI based on Microsoft 365 security data.

**Project Scope:** The project will cover various aspects of Microsoft 365 security data, visualization techniques, and hands-on experience with Power BI.

**Resources:** You will be provided with access to the necessary tools, resources, and guidance to complete the project successfully.

**2. Learning Phase:**

**Introduction to Microsoft 365 Security:** You will receive an overview of Microsoft 365 security features, alert generation, and the significance of security reporting in strengthening organizational security.

**Microsoft Power BI Basics:** We will guide you through the fundamental concepts of Microsoft Power BI, including data loading, transformation, visualization tools, and dashboard creation.
Data Collection: You'll learn how to gather security-related data from Microsoft 365 services like Azure Active Directory, Exchange Online, and SharePoint Online.

**3. Data Preparation:**

**Data Extraction:** You'll be shown how to extract security data from Microsoft 365 services using appropriate connectors and APIs.

**Data Transformation:** We'll guide you in cleaning, transforming, and shaping the data into a suitable format for analysis in Power BI.

**4. Dashboard Creation:**

**Visualization Strategy:** You'll define the essential security metrics and insights you want to visualize in your reports.

**Report Design:** We'll assist you in designing visually appealing and informative dashboards using various Power BI visuals such as charts, maps, and tables.

**5. Data Analysis and Interpretation:**

**Security Metrics Analysis:** You'll learn to analyze the security data to identify patterns, anomalies, and potential threats while focusing on data-driven insights.

**Interactive Exploration:** We'll teach you how to enable interactive exploration using slicers, filters, and drill-through feature.

**6. Reporting Automation:**

**Scheduled Data Refresh:** We'll guide you through setting up scheduled data refresh in Power BI to ensure your reports stay current.

**Report Distribution:** You'll learn how to share your reports within the organization using Power BI's sharing and publishing features.

**7. Documentation and Presentation:**

**Final Report:** You'll create a comprehensive report documenting your project journey, covering data sources, data preparation steps, dashboard designs, insights gained, and incident response analysis.

**Presentation:** You'll present your key findings, insights, challenges faced, and lessons learned during the project.

**8. Evaluation and Feedback:**

**Evaluation Criteria:** Your reports and presentations will be evaluated based on quality, visualization effectiveness, data analysis skills, and incident response strategy.

**Feedback Session:** Constructive feedback will be provided to help you understand your strengths and areas for improvement.