Copilot Integration in Teams Admin Center (TAC) for Policy Management

INTERNSHIP PROJECT REPORT

Submitted in partial fulfillment of the requirements for the award of

the degree Of

BACHELOR of TECHNOLOGY
DEPARTMENT OF ARTIFICIAL INTELLIGENCE & DATA SCIENCES

By

Ankita
01901172022

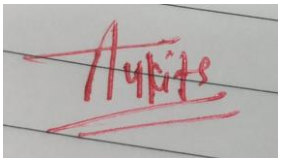
Guided by
Ankita Gupta
Software Engineer-III
Microsoft

INDIRA GANDHI DELHI TECHNICAL UNIVERSITY FORWOMEN
NEW DELHI – 110006

2025-2026

CERTIFICATE

I, Ankita, certify that the Internship Project Report entitled “copilot Integration in Teams Admin Center (TAC)” is done by me and it is authentic work carried out by me at Microsoft. For this project, no work has been submitted before for any degree or diploma of the award, to the best of my knowledge and belief.



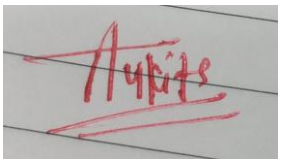
Ankita
01901172022

Certified that the project report entitled “copilot Integration in Teams Admin Center (TAC)” done by the above student is completed under my guidance.

12-11-2025
Ankita Gupta
Software Engineer III
Microsoft

UNDERTAKING REGARDING ANTI-PLAGIARISM

I, **copilot Integration in Teams Admin Center (TAC),** hereby, declare that the material/ content presented in the report are free from plagiarism and is properly cited and written in my own words. In case, plagiarism is detected at any stage, I shall be solely responsible for it.A copy of the Plagiarism Report is also enclosed.



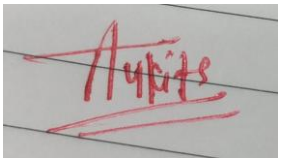
Ankita

01901172022

ACKNOWLEDGEMENT

I would like to acknowledge my mentor Ankita for his very helpful comments, support and encouragement.

Finally, I am grateful to Microsoft for providing a healthy, supportive and understanding environment. They allowed me the freedom to explore innovative models to simplify a complex business problem. This made my project work possible without any hindrance.



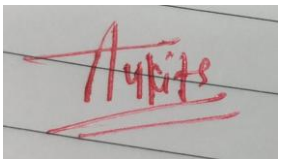
Ankita

01901172022

DECLARATION

I, **Ankita**, solemnly declare that the internship project report, **copilot Integration in Teams Admin Center (TAC),** is based on my own work carried out under the supervision of **Ankita Gupta**. I assert the statements made and conclusions drawn are an outcome of my work. I further certify that:

I. The work contained in the report is original and has been done by me under the supervision of my supervisor.
II. The work has not been submitted to any other Institution for any other degree/diploma/certificate in this university or any other University of India or abroad.
III. We have followed the guidelines provided by the university in writing thereport.
IV. Whenever we have used materials (text, data, theoretical analysis/equations, codes/program, figures, tables, pictures, text etc.) from other sources, we have given due credit to them in the report and have also given their details in the references.



Ankita

01901172022

Internship Offer Letter

Microsoft India (R&D) Pvt. Ltd.
807, New Delhi House,
Barakhamba Road,
New Delhi-110001,
CIN No. U72200DL1998PTC093824.

10/18/2024

Ankita LNU
Street no:5/5,Surender Colony, Jharoda part-3

Delhi-110084

Dear Ankita,

Microsoft India (R&D) Pvt. Ltd. (the **Company** or **Microsoft**) is pleased to offer you the position of Software Engineer Intern.
You will be based in **Bangalore** or such location as may be determined as per the needs of the business. Any such change will be communicated to you in writing, by the Company.
The start date and end date of your internship will be communicated to you in writing.

This Offer Letter along with the Internship Agreement governs your internship with the Company. Further details pertaining to your terms and conditions of your internship are listed in the internship Agreement.

At the end of the Internship Period, depending upon your performance as an intern, you may be eligible for interview by the Company for appropriate positions as intimated by the Company. Notwithstanding the foregoing, the Company is under no obligation to provide you an opportunity to attend interview process at Company or to absorb you into employment at the end of your Internship Period referred to herein and you hereby agree that you shall have no right to claim or demand employment with the Company.

This offer for the position of internship shall not be deemed under any circumstances as an offer of employment with the Company and you shall not be deemed as an employee of the Company during the period of internship.

- During your internship tenure, you will be entitled to a stipend of **INR 125,000.00/-** per month, payable on a pro-rata basis.

- Intern Relocation: **Lumpsum Amount**

  In case your current place of residence differs from the city of the location of your internship, and you work from office (and not remotely), you will be entitled to avail of relocation benefit offered by

the Company.

To avail the relocation benefits, you are required to inform the Company of the location of your residence as at the time of acceptance of this Internship Offer Letter.
As per the relocation benefits policy of the Company, you will be eligible to receive a one-time grossed-up benefit of **INR100,000.00** in accordance with payroll requirements. This will be processed after your start date and will be paid along with stipend for the first month of your internship.

As an Intern, you are only entitled to the Microsoft benefits as provided above. By accepting this offer, you acknowledge to have fully understood and agreed that as an Intern, you will not be eligible for any such additional benefits made available to regular employees.

Taxation:
Any amount payable by the Company to you towards your Stipend, or, any other payment shall be subject to any tax deductible at source and, or, any other taxes and/or any other amounts required to be deducted under applicable law. All requirements under Indian tax laws, including tax compliance and filing of tax returns, assessment etc. of your personal income, shall be fulfilled by you.

Background Verification:
You agree that the Company's offer/the internship with the Company is contingent and subject to the conclusion and positive outcome of the Company's background verification process. The Company may any time, at its sole discretion, conduct this process. In the event of unsatisfactory outcome of such verification, the Company reserves the right to withdraw/revoke the offer before you joining the Company, and/or terminate your internship after you have joined the Company.

Non-Disclosure Agreement:
Should you accept this offer, you will be required to agree to specific non-compete and non-solicitation obligations, which will be further detailed in your Individual Internship Agreement.

Termination: Your internship will be for a definite period, terminable as outlined in your Individual Internship agreement.

Acceptance of Offer: Please indicate your acceptance of this offer by electronically signing and submitting this offer letter.

Microsoft is a place where driven, passionate, and creative people are continuously empowering the world to achieve more. **Ankita**, we look forward to you joining us to achieve your fullest potential.

Yours sincerely,

Daniel Picardo
C&B Leader, India

Internship Certificate

<Paste the Internship Certific

TABLE OF CONTENTS

	Page No.
Job Profile	<xx>
About Company	<xx>
Timeline	<xx>
Mini-Tasks	<xx>
Introduction	<xx>
System Requirement Analysis	<xx>
Software Requirement	
Hardware Requirement	
System Analysis	<xx>
Feasibility Study	
Economic Feasibility	
Implementation Feasibility	
Work Description	<xx>
Work Outcome	<xx>
Conclusion	<xx>
Plagiarism	<xx>
Research Paper	<xx>
References	

JOB PROFILE

Position: Software Engineer Intern
Organization: Microsoft, Bangalore
Internship Duration: 26th May 2025 – 18th July 2025

Roles and Responsibilities:

- Engineered **Copilot integration** in **Teams Admin Center (TAC)** for policy management, using **React MobX, and RxJS**.
- Implemented **dynamic policy recommendations** and **interactive UI components** for enhanced user experience.
- Integrated with **backend APIs** to fetch and update policy data securely and efficiently.
- Developed **loading and highlight states** in UI for improved responsiveness and accessibility.
- Ensured **scalable and maintainable code architecture** by following best practices in component design and state management.
- Collaborated with cross-functional teams to understand feature requirements, propose solutions, and implement them in production-ready code.
- Conducted **unit testing and debugging** to ensure high-quality and bug-free deliverable.

About Company

Microsoft Corporation is a global technology leader, headquartered in Redmond, Washington, USA. Founded in 1975 by **Bill Gates** and **Paul Allen**, Microsoft has grown into one of the world's most influential companies, specializing in software, hardware, cloud computing, and AI-driven solutions.

The company is known for its **innovative products** such as **Windows OS, Microsoft Office, Azure Cloud, Teams, and AI-powered tools**. Microsoft's mission is *"to empower every person and every organization on the planet to achieve more"*, reflecting its focus on providing cutting-edge technology solutions to businesses and individuals worldwide.

Microsoft India, with major offices in **Bangalore, Hyderabad, and Pune**, plays a significant role in global product development, engineering, and research. The Bangalore office, where this internship was conducted, is one of the largest engineering hubs, contributing to product innovation, cloud services, and enterprise software solutions.

Microsoft promotes a **culture of collaboration, learning, and innovation**, providing employees and interns with opportunities to work on real-world projects, explore emerging technologies, and develop professional skills in a supportive environment.

Timeline

Week	Activities / Milestones
Week 1 (26 May – 1 Jun)	Onboarding, understanding TAC, project scope, tools setup.
Week 2 (2 Jun – 8 Jun)	Learning Copilot framework, React & MobX refresher, initial component exploration.
Week 3 (9 Jun – 15 Jun)	Designing UI components, defining state management, planning API integration.
Week 4 (16 Jun – 22 Jun)	Implementing frontend components, integrating with APIs, testing dynamic policy features.
Week 5 (23 Jun – 29 Jun)	Implementing loading & highlight states, debugging, and user interaction enhancements.
Week 6 (30 Jun – 6 Jul)	Refining features, accessibility improvements, code optimization.
Week 7 (7 Jul – 13 Jul)	Final testing, bug fixes, performance improvements, mentor review.
Week 8 (14 Jul – 18 Jul)	Documentation, final submission, presentation preparation.

Mini-Tasks

- Setting up **development environment** with React, MobX, RxJS, and Microsoft internal libraries.
- Understanding **Copilot integration framework** and feature requirements.
- Implementing **dynamic policy recommendation UI**.
- Integrating **backend APIs** for policy read/write operations.
- Adding **loading and highlight states** for better user experience.
- Performing **unit testing, debugging**, and accessibility validation.
- Code optimization and final review with mentor.

INTRODUCTION

The rapid growth of collaboration tools in organizations has created a need for intelligent, automated solutions that assist administrators in managing policies effectively. **Microsoft Teams**, being one of the leading collaboration platforms, requires efficient tools for policy management to enhance user experience and ensure compliance.

During my internship at **Microsoft, Bangalore** as a **Software Engineer Intern**, I worked on the project titled **"Copilot Integration in Teams Admin Center (TAC) for Policy Management using React, MobX, and RxJS"**. The primary goal of this project was to integrate **Copilot functionality** into the Teams Admin Center, enabling administrators to receive **dynamic policy recommendations**, automate certain workflows, and improve overall usability of the platform.

The project involved:

- Designing and implementing frontend components using **React** with state management via **MobX**.
- Leveraging **RxJS** for reactive programming to handle asynchronous data streams efficiently.
- Integrating with **backend APIs** to fetch and update policy configurations securely.
- Ensuring accessibility, responsiveness, and maintainability of the application.

This internship provided an opportunity to work on a real-world enterprise project, contributing to a product used by millions globally. It also helped me gain hands-on experience in **modern web development frameworks**, **enterprise software practices**, and **team collaboration in a professional setting**.

System Requirement Analysis

Software Requirements

- **Operating System:** Windows 10 / Windows 11
- **Development Tools:** Visual Studio Code, Node.js, Git
- **Languages / Frameworks:** React, MobX, RxJS, TypeScript
- **APIs & Libraries:** Microsoft Graph API, internal TAC APIs
- **Other Tools:** Azure DevOps, Postman, Jest for unit testing

Hardware Requirements

- **Processor:** Intel i5 or higher
- **RAM:** Minimum 8 GB
- **Storage:** Minimum 256 GB SSD
- **Internet:** High-speed connection for cloud access and collaboration

System Analysis

Feasibility Study

- **Technical Feasibility:** The project leverages modern frontend technologies (React, MobX, RxJS) and existing Microsoft APIs, making it technically feasible.
- **Operational Feasibility:** The project enhances TAC's policy management workflow and can be integrated into the existing platform without disrupting current operations.

Economic Feasibility

- Minimal additional costs were required as the project used existing Microsoft infrastructure and tools.
- Reusable components reduce future development effort and resource usage.

Implementation Feasibility

- The integration was achievable within the 8-week internship, using Agile development practices and support from mentor and team.

Work Description

The internship project involved **designing, developing, and integrating Copilot features** in Microsoft Teams Admin Center (TAC) for policy management:

- **Frontend Development:** Using **React**, implemented reusable components for policy recommendations.
- **State Management:** Used **MobX** to manage application state efficiently across dynamic components.
- **Reactive Programming:** Leveraged **RxJS** for handling asynchronous streams from backend APIs.

- **API Integration:** Connected with TAC backend APIs to fetch, update, and validate policy data.
- **UI/UX Enhancements:** Added **loading states**, **highlighting**, and **error handling** for better administrator experience.
- **Testing & Debugging:** Conducted **unit tests**, fixed bugs, and ensured accessibility compliance.

Work Outcome

- Successfully **integrated Copilot functionality** into TAC for policy recommendations.
- Delivered **interactive UI components** with real-time updates.
- Improved administrator efficiency with **dynamic suggestions** and **enhanced feedback UI**.
- Gained hands-on experience with **enterprise frontend frameworks**, **state management**, and **API integration**.
- Documented all code and implementation details for **future maintainability**.

Conclusion

The internship at Microsoft provided a **practical, hands-on experience** in developing enterprise-grade software. The Copilot integration project enhanced my technical skills in **React, MobX, RxJS**, API integration, and UI/UX design.

I learned how to:

- Collaborate with a professional software engineering team.
- Transition from theoretical knowledge to **production-quality implementation**.
- Manage project deadlines and deliver **scalable, maintainable solutions**.

This experience has significantly strengthened my understanding of **real-world software development** and prepared me for future roles in engineering.

Plagiarism

The work presented in this report is **original** and has been carried out solely by me during the internship. A **plagiarism report** confirming the originality of this work is attached with the submission

Research Paper

Title: Enhancing Digital Evidence Analysis through Advanced Forensic Tools

Authors: Anjum, Ankita

Description:

The paper "Enhancing Digital Evidence Analysis through Advanced Forensic Tools"

explores the application of advanced forensic tools like EnCase, FTK, and Cellebrite in

the field of digital forensics. This study investigates how these tools can significantly improve the recovery, analysis, and presentation of digital evidence in criminal investigations. The focus is on enhancing the accuracy of evidence retrieval, processing

large datasets, and maintaining the integrity of digital data through robust techniques

such as file carving, encrypted data handling, and mobile device forensics. Future work

will involve expanding the toolset with AI-driven analysis and

integrating multi-source

data for enhanced investigative insights. The ultimate goal is to improve the efficacy of digital forensic investigations and aid in the swift resolution of cybercrime.