SECURE USER AUTHENTICATION FOR WEB APPS USING IBM CLOUD APP ID

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WHY DO WE NEED AUTHENTICATION SERVICES FOR WEB APPS

- **Verify User Identity**
- Ensures the person logging in is really who they claim to be.
- Prevents impersonation and protects accounts from being misused.

- **Protect Sensitive Data**
- Company portals often store confidential data.
- Authentication ensures only authorized users can access it.

- **Control Access (Authorization)**
- Different users have different privileges (e.g., admin vs. employee).
- Authentication is the gateway before authorization rules are applied

🔑 CHALLENGES WITHOUT SECURE WEB AUTHENTICATION

1. PASSWORD VULNERABILITY

2. UNAUTHORIZED ACCESS

3. NO ACCOUNTABILITY
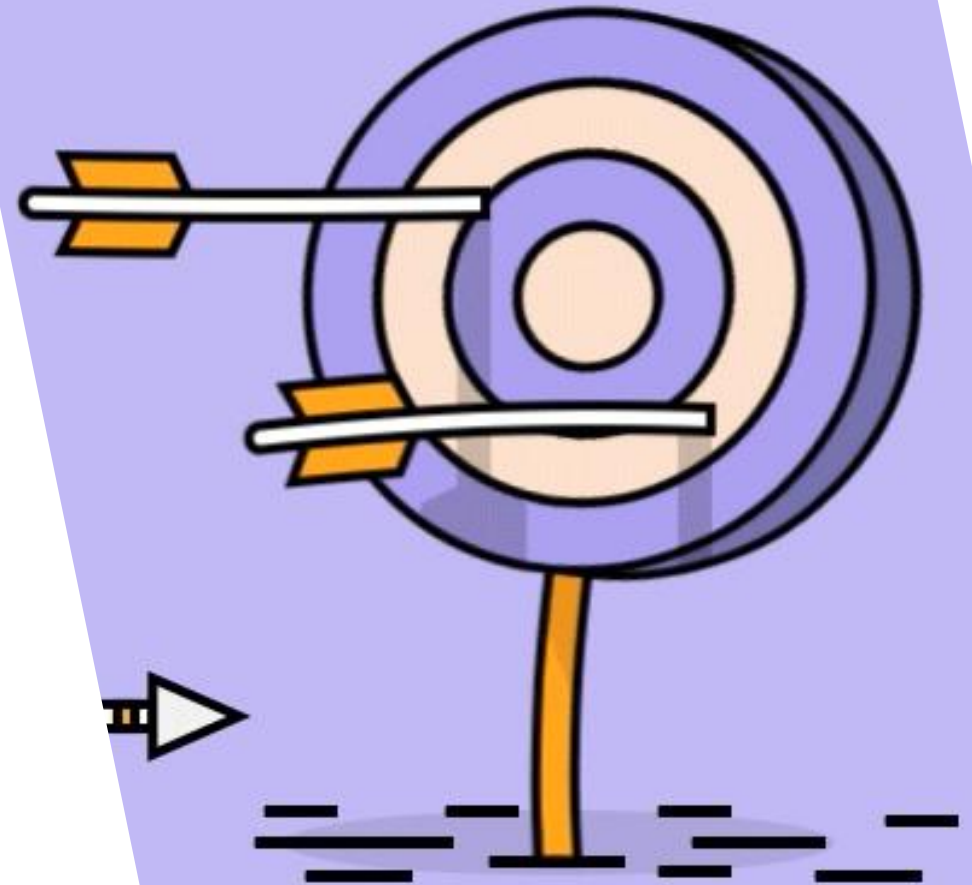
4. DATA BREACH RISK

5. INSIDER THREATS

🎯 OBJECTIVE

THE PROJECT'S OBJECTIVE IS TO SECURE WEB APPLICATIONS BY INTEGRATING IBM CLOUD APP ID FOR STRONG USER AUTHENTICATION, PROTECTING RESOURCES WHILE ENSURING A SMOOTH USER EXPERIENCE.

1. ONLY AUTHORIZED USERS CAN ACCESS THE APPLICATION

2. SENSITIVE DATA AND RESOURCES ARE PROTECTED FROM UNAUTHORIZED ACCESS

STEP-BY-STEP AUTHENTICATION FLOW

1. User enters email & password in signup/login form

2. Credentials sent securely to IBM Cloud App ID

3. App ID verifies credentials against Cloud Directory

4. If valid → user authenticated successfully

5. Web app creates a session for the user

6. User accesses protected pages

7. Logout or session expiry ends access

TOOLS USED

- IBM Cloud Account ☁️
- IBM Cloud App ID 🪪
- Web Application Framework (HTML/CSS/JS) 🖥️
- Secure Session Management 🔐
- Browser for User Access 🌐

WORKING DEMO
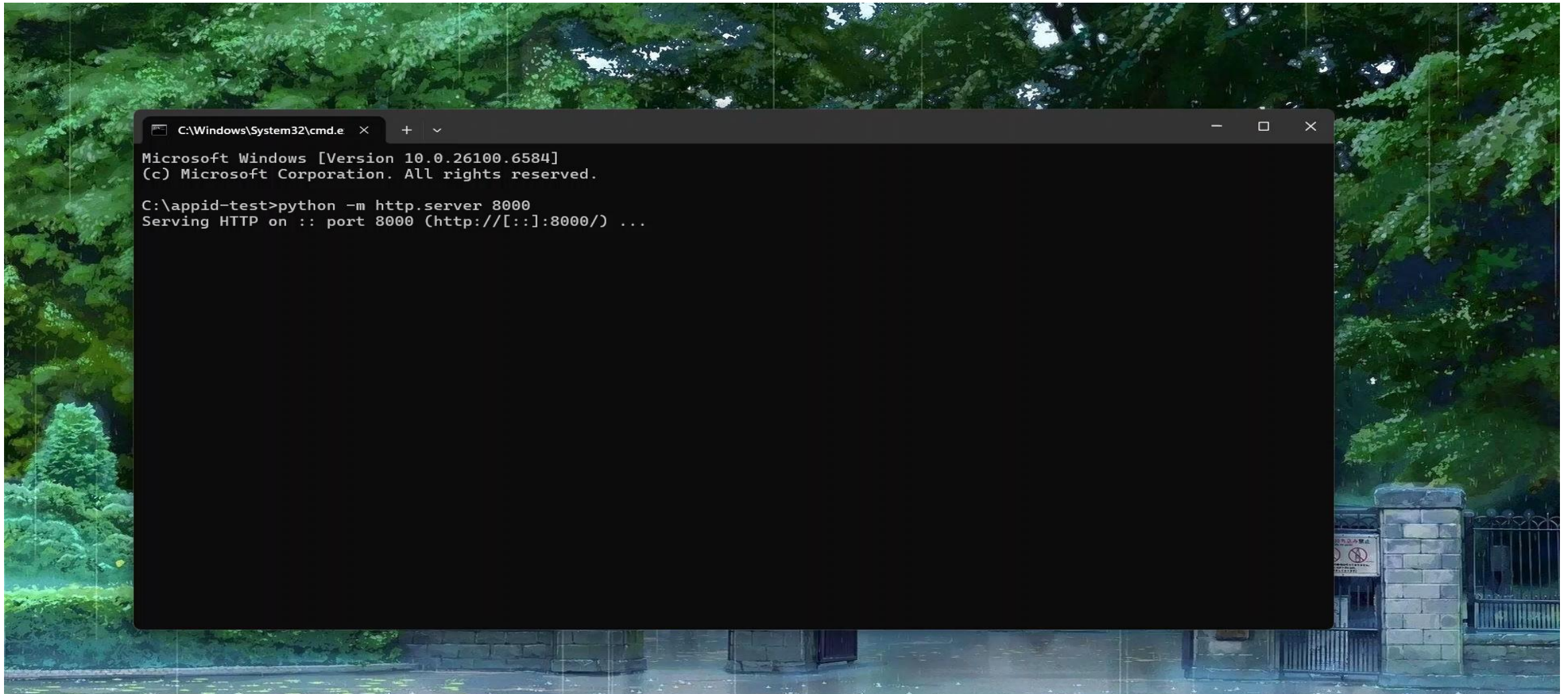
CONCLUSION

IBM CLOUD APP ID DELIVERS A **COMPREHENSIVE AUTHENTICATION SOLUTION** THAT TRANSFORMS WEB APPLICATION SECURITY WITHOUT REQUIRING EXTENSIVE SECURITY EXPERTISE FROM DEVELOPMENT TEAMS. THE SERVICE ELIMINATES THE COMPLEXITY OF BUILDING AUTHENTICATION INFRASTRUCTURE WHILE PROVIDING ENTERPRISE-GRADE SECURITY FEATURES THAT SCALE WITH BUSINESS NEEDS.

THANK YOU

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