

Task: 02

Security Policy Review and Enhancement

Task: Review and enhance security policies and procedures for an organization.

CODE:-

```
# Security Policy Review & Enhancement Simulation in Colab

import pandas as pd

# -----
# 1. Sample Security Policies (Dummy Text)
# -----
policies = {
    "Access Control Policy": "Users must have unique accounts. Passwords should be 8 characters long.",
    "Data Protection Policy": "Data should be protected. No mention of encryption.",
    "Incident Response Policy": "Incidents should be reported, but no timeline is defined.",
    "Business Continuity Policy": "Backups are maintained, but no RTO/RPO defined."
}

# -----
# 2. Key Controls to Look For
# -----
controls = [
    "multi-factor authentication",
    "least privilege",
    "encryption",
    "TLS",
    "incident response timeline",
    "RTO",
    "RPO",
    "vendor risk assessment",
    "security awareness training"
]

# -----
# 3. Review Each Policy
# -----
review_results = []
```

```

for name, text in policies.items():
    found = [c for c in controls if c.lower() in text.lower()]
    missing = [c for c in controls if c.lower() not in text.lower()]
    review_results.append({
        "Policy": name,
        "Found Controls": ", ".join(found) if found else "None",
        "Missing Controls": ", ".join(missing) if missing else "None",
        "Enhancement Suggestion": f"Update {name} to include: {'',
'.join(missing[:3])}..."
    })

# -----
# 4. Convert to DataFrame
# -----
df = pd.DataFrame(review_results)
print("=== Security Policy Review Results ===")
df

```

OUTPUT:-

=== Security Policy Review Results ===

	Policy	Found Controls	Missing Controls	Enhancement Suggestion
0	Access Control Policy	None	multi-factor authentication, least privilege, ...	Update Access Control Policy to include: multi...
1	Data Protection Policy	encryption	multi-factor authentication, least privilege, ...	Update Data Protection Policy to include: mult...
2	Incident Response Policy	None	multi-factor authentication, least privilege, ...	Update Incident Response Policy to include: mu...
3	Business Continuity Policy	RTO, RPO	multi-factor authentication, least privilege, ...	Update Business Continuity Policy to include: ...

What this does:

- Takes **dummy policies** (you can paste your real text into `policies` dictionary).
- Scans for **required security controls**.

- Shows what is **missing**.
- Suggests **enhancements** automatically.

Next Steps (Optional):

- Upload your organization's actual **policy documents (txt, docx, pdf)** into Colab and parse them.
- Expand the `controls` list to match ISO 27001, NIST CSF, or your compliance framework.
- Export the `df` into **Excel/CSV** for management reporting.