# *REPORT SUMMARY: ALL WASHED UP*

## ASSISTANT MANAGER:

VICTORIA LEE

# EXECUTIVE SUMMARY

Information technology expansion:

- website on WordPress

- handling data on Excel

- social media

Issues:

- single points of failure

- potential abuse of data

- Lack of policies and cybersecurity

Solutions to these problems include the following

- job rotation and cross training policies

- reorganization of IT structure

- implementing better security

# THE PROBLEM

**Single Points of Failure upon IT Functions and security**

- Jane Nelson  - A Web developer for All Washed Up's Website.
    - Only Jane has access to her personal account for the WordPress.
    - If absent, no other employee could update the website.

- Employees access Excel file only through Maria's computer
    - If absent, no other employee could provide access or update sensitive data and security is affected.

- Taking advantage of sensitive data
    - Excel on Maria's computer; Website on shared computers
    - If there are no policies or security measures on any computer, sensitive data may be mishandled or a security breach; vulnerable to tampered files or hacking.
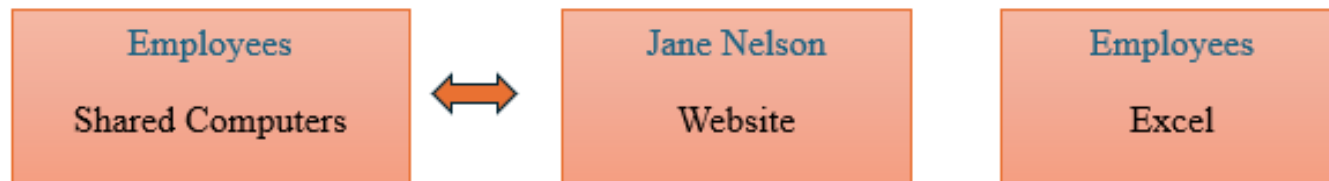
# THE PROBLEM

**Potential Abuse of Data**

- Employee leaves the company on bad terms with the company or individuals
  - sensitive data may damage the reputation of the company
- prevent this possibility by giving proper advice, communications, and strategies to overcome this issue
- Sykes, T. A., Venkatesh, V., & Johnson, J. L. (2014) argues that an effective communication, internal controls, and policies within the organization can alleviate an employee's sudden leave of absence and prevent taking advantage of sensitive data.
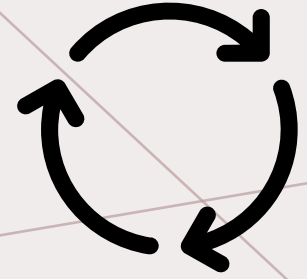
**Figure 1**

*IT Organization at All Washed Up*

| Employees | | Jane Nelson | Employees |
|---|---|---|---|
| Shared Computers | ⟷ | Website | Excel |

The problem illustrated above shows a *single point of failure*. If only one person or a group finishes the task and cannot access sensitive data on the other computers securely.

# SUGGESTED SOLUTIONS



**Cross-Training and Job Rotation Policies:**

- Jane can be trained to update the website, employees can be trained to update the Excel file, and both can be trained to swap roles if one were to be absent.

Policies by Olivella and Nembhard (2017) helps improvement with the five policies:

- *Minimize cost* is the total number of tasks carried out, with constant cost across tasks. *Maximize specialization*, are specialized workers trained in no more than a certain number of tasks to minimize cost. *Equal cross-training*, least cost when worker must have the same cross training level. Two multi-level policies: maximize specialists given a minimized training cost and Equal cross training given a minimized training cost… Results may provide an improvement in robustness. (p. 80, 87)

- All employees could learn for website on WordPress or the Excel file.

Policies allow: Job rotations for computers and substituting absent employees

Promotes: teamwork and cross-training employees at a cheap cost.

# SUGGESTED SOLUTIONS

**Reorganization of IT Structure and All Washed Up Accounts**

1) Job rotations – Swap experiences in both Website and Excel file (for all employees)

2) One professional account for WordPress and Excel to only be accessed within the company for all computers.

3) Admin and AI application for privacy monitoring.

4) Open computers for all and securely access Website and Excel (Admin access)

5) It helps securing the shared access of the files or website and advice helps overcome employee absentee for job rotations.

Hernaus, Černe, and Škerlavaj (2021):

"Job interaction positively increases JCP if implementing system-wide… may increase work effort beyond formal job requirements." (p. 627-630, 637, 638)

Sykes, T. A., Venkatesh, V., & Johnson, J. L. (2014):

"Workflow advice teaches employees of unexpected activities. Software advice teaches system functionalities, system-generated errors, and system constraints. The results suggest positive changes to job performance" (p. 54, 55, 63).

**Figure 2**
*Revisional IT Organization at All Washed Up (Structures 1 to 4)*
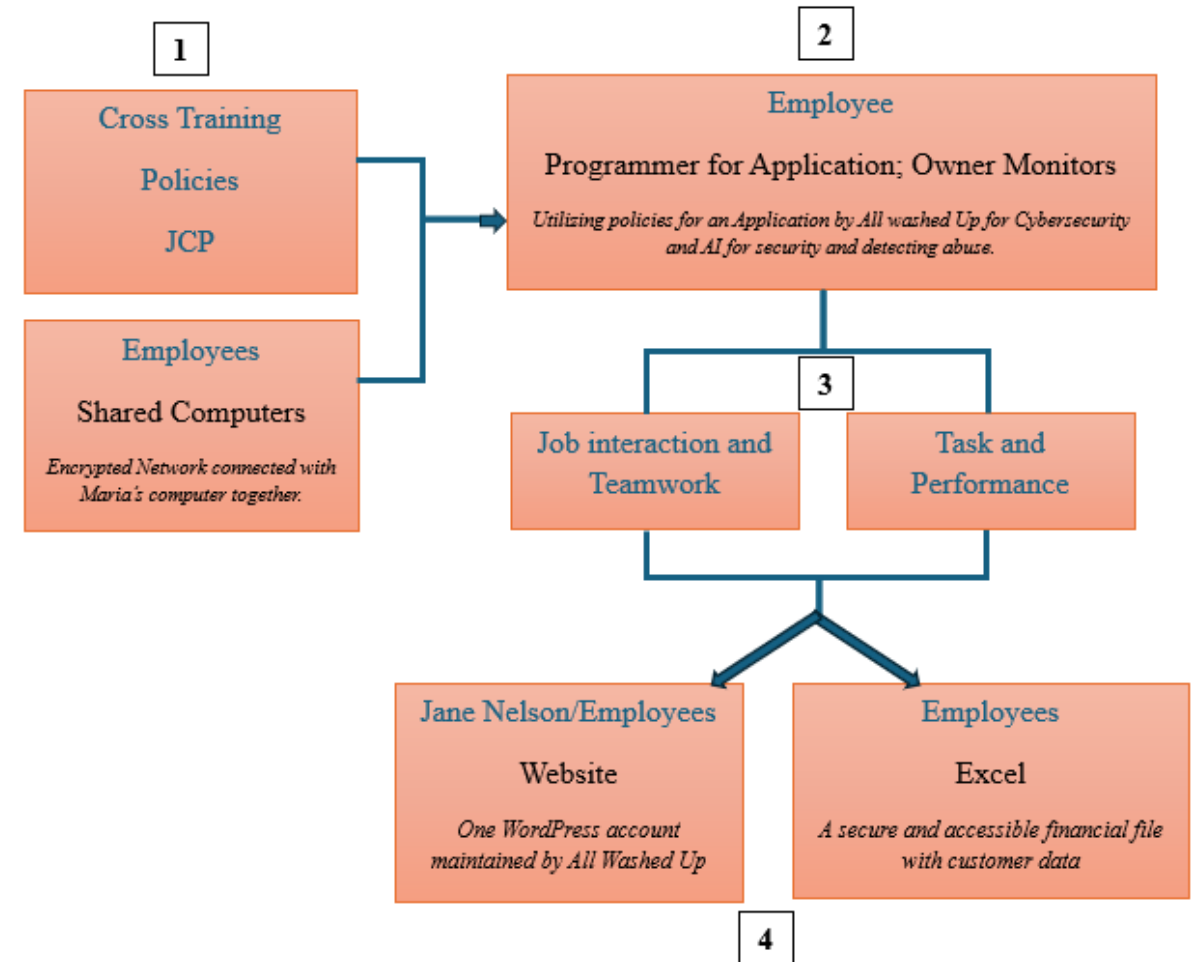
# SUGGESTED SOLUTIONS AND CONCLUSION

**Cybersecurity and Monitoring**

1) Establish proper security measures and policies. Revising allows access the misused data and securing data for all computers.

2) Owner: Admin of AI application for securing sensitive data and the company.
    1) programed and hiring to build and update this application.
    2) If employees absent, then it provide security for job rotation to cover absent employees.

3) Domashova, J., Kripak, E., & Pisarchik, E. (2022) explain using AI to monitor actions of employees and securing data. It features "monitoring data and credit; algorithms of machine learning identify suspicious actions of employees. As a result, the Balanced Baggin algorithm can detect employee actions related to violation of banking procedures or theft of customer funds" (p. 112, 117).

4) Owner: Secure Excel with AI Application with cryptography. Employees work securely without data leaks.

5) Wai, H. Y., & Nwe, K. M. (2009) explains, "Microsoft Word or Excel are encrypted and decrypted using DES and RC5 algorithms with a secret key and stores the time and sizes. Choosing the proper high-performance networks to transfer data can enhance performance and security for files" (p. 3,4, 6).

**Conclusion:**

Implementation of rotation policies, cross-training, and security measures: Job rotations and any person may access to files securely on any computer.

Company must complete the four reorganization structures mentioned previously to improve the company and data security for pivotal roles in times or absence or emergencies

# REFERENCES

Domashova, J., Kripak, E., & Pisarchik, E. (2022). Application of machine learning methods to identify suspicious actions of employees related to violation of the procedures of a credit institution. *Procedia Computer Science*, *213*, 110–118. https://doi-org.ezproxy.umgc.edu/10.1016/j.procs.2022.11.045

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Wai, H. Y., & Nwe, K. M. (2009). Encryption and Decryption by using RC5 And DES Algorithms for Data File. *Doctoral dissertation, MERAL Portal, 1-6.* https://meral.edu.mm/record/4194/files/55348.pdf