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| **Module Code** | DWD 501 | **Module Title** | DWD 501 Computer Systems and Support |
| **Student ID** | 3201807 | **Name** | Jack Bradley-Coombes |

**DWD 501 Computer Systems and Support - Assessment One**

**Part 1:** Select and examine two of the following system management frameworks. Provide a summary of both frameworks with one advantage and disadvantage relevant to the ABC company [7 marks] (200-300 words)

**Framework 1: COBIT**

The Control Objectives for Information and Related Technology framework (or COBIT for short) aims to help businesses control IT and find the right direction to proceed in by providing guidance and practices for how to manage information relating to IT. It is designed to align business goals with It goals. An example of COBIT being used could be: A business is losing its partners in favour of their rivals, due to frequent delays, and slow processes. COBIT can help with this by establishing clear goals on new ways to up the efficiency of their service.

COBIT works well for the ABC’s company because it can help streamline IT operations, focusing on process efficiency and resource optimization. This will help the company allocate resources more effectively and efficiently, as well as reducing costs with redundant processes, therefor also resulting in more funds to allocate to any issues or business opportunities that arise.

COBIT has downsides too however, for example, it is quite difficult to implement, requiring a lot of skills and knowledge to make effective use of, requiring an experienced analyst for effective use.

**Framework 2: DevOps**

Development operations, or DevOps, is a set of practices, tools and a philosophy, that intends to automate and integrate the process between software development and IT teams. An example of a DevOps team in practice would be: On a project, both the software developers and the IT operations would be work together on said product, with the aim to increase the speed and quality of the result.

DevOps fits well with ABC Company’s goals, as it provides top quality speed, through its continuous delivery, allowing teams to build, test, and deliver software with automated tools. It also provides Quality and reliability through practices like continuous integration and continuous delivery. These practices ensure changes are functional and safe, increasing quality and reducing the chance of errors.

**Part 2:** Using an appropriate incident management process (the process can be based on any one of the above frameworks), devise an action plan to contain and recover from the *W32/Autorun-AMS* incident.

DEVOPS has an effective Incident Recovery Management plan that can help detect and resolve issues like worms or other malware. Once an issue is detected, a DevOps team receives the information through their monitoring tools, then an on-call team directs what needs to be done to fix the current issue, in the worm’s case it’s probably good to disconnect internet to prevent any further spreading until an employee comes to fix it. Ideally you can get the Antivirus UpToDate to deal with the worm, when removing the worm, the PC should be booted in Safe Mode to minimize all risks. Next, it’s important to make sure any all-lost data is recovered, and all applications return to normal. Lastly everything that happens should be documented and analysed. By using this information, you can assign responsibilities to prevent the same problem from happening again.

**Part 3:** Explain how you can utilize the CI (Continuous Integration) and CD (Continuous Delivery) processes to improve the service management in the given case study. [7 marks] (200-300 words)

The ABC company requires Continuous Integration, and Continuous Delivery Processes, to improve their service management integration, and service delivery, due to staff management requests not being answered on time. The IT team can use Continuous Integration when developing to reduce errors and increase efficiency, and result in better software quality. By using Continuous Delivery, they can test the software in a production similar environment, with the goal of preventing postproduction surprises. By running tests like load time tests, integration tests, and UI tests, bugs can be found in the system before full release, preventing future issues. These two methods will reduce bugs and increase production speeds in the release product, fixing problems many bugs like tickets not being received, and removing issues like updates not being released intime to protect from a new computer worm.

**Part 4:** Develop an inclusive training plan for your customer support team which should include - Two strategies to encourage cultural diversity [8 marks] (200-300 words) and Two strategies to encourage gender inclusion [8 marks] (200-300 words)

**Gender Inlcusion.**

1. **Ensure hiring procedures are free from bias and promote diversity**

Sometimes, when hiring people, personal bias can interfere with the decision-making process, whether its conscious or subconscious bias, both reduce the diversity in a workplace. This can make it harder to get some jobs, as some workplaces can be bias to you because of your gender. To help with this issue its good to apply some Methods like: Structured recruitment process. By defining roles requirements, you can pick the right candidate for the job, despite any personal bias. Another important step is diversity Training for hiring teams. This will help reduce any personal bias and help the hiring team understand different candidates’ cultures.

1. **Build an inclusive work culture**

By building a diverse work culture, it will keep the job market fair for everyone to get jobs and ensure working conditions are up to notch, ensuring everyone can feel welcome and comfortable at their jobs. Some methods to help keep a diverse work culture are: Diverse leadership teams, by giving diverse perspectives at top level, it will be easier to understand different people of different gender and culture. By having a diverse leadership team, it shows that the company prioritizes inclusiveness. This can send the message to employees, that inclusiveness is important. It is also important to implement a no-nonsense strict rule against harassment and bullying. Lastly the organization should ensure that all employees feel appreciated for their work, and welcome in the company.

**Cultural Diversity**

1. **Offer Employee Resource Groups**

Providing employee led groups within organizations aimed at promoting diversity development and inclusion, with the goal of inclusiveness, and providing resources for employees, can help employees feel welcome and accepted. Through the employees’ resources groups, employees use these groups to connect with colleagues, have a voice for change, and share values and culture with others, overall helping to ensure a safe, happy, and diverse workplace. To implement and employee resource group, employees must be interested enough for it to be worth investing in, due to the nature of it being employee led. It is also important to get an executive buy in to ensure the success of the group.

1. **Host Implicit Bias Training**

Everyone tends to make unconscious judgments about people, but sometimes these biases can negatively affect others. By provide personal bias training to employees, it will help raise awareness among staff about their unconscious biases and help them recognize and address decision making bias. Educating employees and helping will help them understand and acknowledge their own biases. Once they are aware of their biases, they can make a conscious decision to treat everyone equally, therefor making them become better equipped to make unbiased decisions, challenge stereotypes, and avoid harassment. Its important to call out bias and hold employees accountable, to encourage real change.

**Part 5:** Explain how implementing your four strategies will improve the customer service [10 marks] (250-350 words)

By encouraging cultural diversity in the workplace, that acceptance will also apply to customer service, meaning employees will provide unbiased, good customer service to any customer, no matter their culture. This also applies to gender inclusion, as if employees are unbiased to any customer, no matter their gender, they will provide better customer service. Another factor to consider is that happy employees make better customer service. If the employees feel happy and safe in their workplace, they will share that positive energy forward to their customers. But they won’t only just be better communicating with customers, they will also provide better work. Happy employees are more efficient at working and make more high-quality work. If employees are unbiased with each other, they will also work better as a team, therefor further increasing efficiency and quality even more. Another factor to consider, is when using the unbiased hiring structure, all employees will be the most qualified for their respective jobs as possible, also increasing productivity. Once customers are satisfied with the service, they may decide to tell others about the service, increasing popularity of the company. It’s always important to remember that no one is perfect, neither the employee. Employees make mistakes, and when that happens its best to admit mistakes and amend the mistake as much as possible. Some customers have different needs, so its always best to unbiasedly serve the customer however best fits them, sometimes that may be helping them directly, sometimes you may want to help them help themselves. An example how these strategies would help ABC company can be found in the recent issue with Priyanka ticket not being answered. While it isn’t confirmed what the exact cause of this happening is, it is likely due to either sexism, bad customer service, or faulty software. Assuming it was sexism, then the implementation of the gender inclusion strategies would prevent issues like this happening. If it was a faulty software issue, then having faster more efficient employees means up to date and high-quality software. Lastly if it was a customer service issue, then a happier more diverse and welcoming workplace, would result in happier employees, resulting in faster and better customer service.

**Part 6:** outline four possible barriers to implementing inclusion [8 marks] (200-300 words)

Barriers of course exists when implementing inclusion strategies, one such example is stubbornness. Some people don’t like change, and are stubborn about changing their ways, and about changing their biases. Sometimes, employees resist changes like these because they fear their own position or status within the organization may be threatened in a more inclusive environment. Its important to make it clear to all employees how diversity will benefit everyone, enhancing innovation and performance for the company.

Another barrier could come in the implementation of the employee led resource group, as for this group to work at all, employees must be willing and wanting to support and maintain this group, due to the fact that it is employee run. Of course, the group also requires executive buy in, without that the group wouldn’t work also. Again, it’s important to hammer home the importance of this group and how it will benefit not only the employees, but the company as a whole.

Leadership buy-in and support are important for inclusion as a whole, not just the employee resource group. If leadership doesn’t prioritize and model the inclusive behaviour, it shows that diversity isn’t important in the company, and can result in the employees having a lack of commitment as well.

Of course, unconscious biases can be hard to detect and change, even with training. Some employees may understand the existence of unconscious biases, but be ignorant to their own, or perhaps they are aware of their biases but still can’t make changes to their decision-making processes despite this.

COBIT

[What are the disadvantages of COBIT framework? – Stwnews.org (stw-news.org)](https://stw-news.org/what-are-the-disadvantages-of-cobit-framework/#What_are_the_disadvantages_of_COBIT_framework)

[Benefits of Cobit At The Workplace: All You Need To Know (theknowledgeacademy.com)](https://www.theknowledgeacademy.com/blog/benefits-of-cobit/)

[COBIT vs ITIL: a real-life example of what these two can do (scnsoft.com)](https://www.scnsoft.com/blog/cobit-vs-itil)

DEVOPS

[What is DevOps? | Atlassian](https://www.atlassian.com/devops#:~:text=DevOps%20is%20a%20set%20of,software%20development%20and%20IT%20teams)

[DevOps Incident Management: A Guide With Best Practices (xplg.com)](https://www.xplg.com/devops-incident-management-best-practices/)

Diversity

[How to start an employee resource group at your company | Culture Amp](https://www.cultureamp.com/blog/start-employee-resource-group)

[14 Ways to Promote Cultural Diversity in the Workplace | Unexpected Virtual Tours & Training](https://unexpectedvirtualtours.com/resources/cultural-diversity-in-the-workplace/)

[5 Steps to Promote Gender Equality in the Workplace - ELMO Software NZ](https://elmosoftware.co.nz/resources/blog/5-steps-to-promote-gender-equality-in-the-workplace)