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**COSC2196**

**Introduction to Information Technology**

**Assessment 2: Team Project**

**Team 24**

**Prepared by:**

**Motiana Tusa, Joanna Jane, Mason Brown, Simon Mckindley, Roshan Khadka and Amer Muhammad**

**Team Profile**

Team Name: #24

Personal Information (name, student number, background, hobbies, IT interests, IT experience, team name)

Motiana Tusa

<https://github.com/MotianaTusa/Motiana.github.io>

Joanna Jane

<https://github.com/s3873742/My-I.T-Profile>

Mason Brown

https://github.com/s3876704/Intro-to-IT-

Roshan Khadka

https://github.com/rk121/rk121.github.io

Simon Mckindley

https://s9406133.github.io/IntroToITAssigment1/

Amer Muhammad

https://s3728065.github.io/My-Profile/

Team Profile

**Ideal Jobs**

**Tools**

**Industry Data**

**IT Work – Interview with IT professional**

1. **Please tell us about the industry you work in.**

I work in the Cyber Risk domain which comes under the wider umbrella of the Risk Advisory services that my organisation offers to their clients. Risk Advisory Services are meant to help their clients which can be a business, or an organization understand the risks it faces and minimize such risks. The risks that an organisation faces can be of any of the below types:

* **Operational Risk** refers to risks associated with employee conduct, business processes, and overall operational structure
* **Regulatory Risk** refers to risks associated with meeting and adhering to government regulations
* **Strategic Risk** refers to risks undertaken by the organisation related to the implementation of its business strategies
* **Cyber Risk** refers to risks associated with cyber-related threats

1. **Please tell us about your IT work. What exactly do you do?**

After pursuing my bachelor’s in computer science, I started working in one of the Big 4 consulting firms as a Business Technology Analyst. I work in the Cyber Risk department as a Senior Consultant. Cyber Risk focuses on the technological aspect of the risks the client’s business might face i.e. their applications, systems, servers, etc. This area of services further comprises of the below technology services for client:

* 1. Identity and Access Management
  2. Application Security
  3. Governance Risk and Compliance
  4. Data Privacy and Protection

I specialise in the Application Security space with an expertise in security strategy and design, architecture, and implementation of security in client’s applications.

1. **What other kinds of work do you have to do?**

Apart for providing general consulting services to clients, depending on the projects – I assist in the project management, resourcing and writing statement of work for various clients

1. **Who are all the different people you interact with in your work? Please tell us about them.**

The people I interact with as a part of my job are the client counterparts, who are usually IT professionals. These client professionals provide insights into the client’s business and the define requirements for the work to be undertaken by our team.

We interact with people and teams from diverse range of industries, for example – Consumer and Industrial products, Public Sector, Financial Services, TMT – Technology, Media & Telecommunications, etc which gives us an opportunity to understand how these businesses work, their products and services, goals and also their problems and vulnerabilities.

1. **Please tell us about your interactions with other IT professionals.**

Being a senior consultant, I act as an intermediary between the organisation’s leadership and the operational staff. My interactions with the leaderships mainly comprise of discussions on expanding the cyber risk practice, design trainings for staff, acquiring new skills to keep the professionals up to date with the emerging trends and contributing to business proposals

With the operational staff, my interactions focus majorly on coaching the staff around various upskill trainings and help them make aware about different career pathways in the Cyber world

1. What about your interactions with clients or investors? – Same as No. 4-
2. **What aspects of your work do you spend most time on? Please tell us about these.**

Most of my time at work is spent on conducting workshops with the clients to understand the requirements of the work. As a part of my work, I also train the junior staff and university graduates to bring them up to the speed and make them aware about the new trends in the industries

1. **Which aspects of your work do you find most challenging?**

Honestly, every day is a new challenge when working in a dynamic consulting environment solving real-time problems of the clients. Due to the current situation, the most challenging aspect of my job is virtually connecting with the clients’ stakeholders and my team. For a person like me, who values and thrives on human interaction, it was quite challenging to adjust and adapt to the remote working scenario initially.

But to overcome this, I always encourage my team to switch on their videos, frequently organise team building and networking events and have virtual drinks/ coffee catchups with other professionals in the organisation.

1. **Finally, can you share an example of the work you do that best captures the essence of the IT industry?**

My role requires me to wear different hats to manage and sometimes lead the projects. To capture the essence of the consulting world, below are a few examples of the various tasks I perform as a part of my routine:

* Design, manage, lead, and evaluate projects
* Lead and develop team members on projects
* Manage project resourcing
* Manage clients and key stakeholders
* Be able to facilitate and hold workshops
* Be proficient in assessing where a business is at and how to move them forward with  
  greater financial viability.
* Write proposals and reports competently and succinctly

\*Please provide your consent to use your first name and job title for the purpose of this assessment only.

I agree to provide my consent to use my first name and job title for the purpose of this assessment:

**Parneet M  
Senior Consultant, Cyber Risk Services  
Deloitte Australia**

**IT Technologies**

**Clouds, Services and Servers:**

“Cloud computing is the practice of using a network of remote servers hosted on the

Internet to store, manage, and process data, rather than a local server or a personal

computer.” (Source: <https://www.futureofeverything.io/future-of-cloud-computing/>)

The concept of cloud computing was developed in the 1960’s, in 2006 Amazon Web

Services introduced its Elastic Compute Cloud (EC2). In the 2010’s development and

releases of services like Microsoft Azure, IBM SmartCloud, and Google Compute Engine

occurred. (Source: <https://en.wikipedia.org/wiki/Cloud_computing>)

Cloud computing is named as such because the information being accessed is found

remotely in the “cloud” or a virtual space. Companies that provide cloud services enable

users to store files and applications on remote servers and then access all the data via

the Internet. This means the user is not required to be in a specific place to gain access

to it, allowing the user to work remotely. In fact, the use of cloud services is becoming

more and more prevalent amongst both individual users, as well as businesses. The

growing number of cloud network services support this, some examples of cloud

networks and providers include: MS OneDrive, CertainSafe, Google Drive, Dropbox,

IDrive, Apple iCloud Drive just to name a few of the growing number of networks and

providers. (Source: <https://au.pcmag.com/file-syncing-and-backup-1/3696/the-best-cloud-storage-andfile-sharing-services-for-2020>)

**The advantages, benefits and efficiencies provided to users of a cloud service**

**include the following:**

**Cost effective -** Cloud computing eliminates the need for physical data centres and

server rooms on location, so cost is reduced on hardware, software, IT services and the

overheads involved for maintaining a functioning data centre such as electricity and

cooling. Over time the cost saving can be quite substantial when using a cloud service

over the conventional data centre. For individuals this allows them access to the cloud

services without the cost involved with the running of conventional data centres and

expenditure on expensive data storage hardware while allowing for access to the cloud

service.

**Speed -** cloud computing services generally provide self service and on demand, where

computing resources can be accessed for use in a matter of minutes, typically with just a

few mouse clicks, giving individuals and businesses a lot of flexibility in accessing large

amounts of data in a timelier manner - especially with deadlines looming.

Global scale - cloud computing services include the ability to scale elastically. Which

means delivering the right amount of IT resources - for example, computing

power, storage, bandwidth - as required and from the right geographic location, allowing

for effective service and troubleshooting for both businesses and individuals.

**Productivity -** on-site data centres typically require a lot of “racking and stacking” -

hardware setup, software patching, and other time-consuming IT management chores.

Cloud computing removes the need for many of these tasks, so IT teams can spend time

on achieving more important business goals. For individuals this allows them access to

the cloud services without the cost involved with the running of conventional data

centres, allowing for the focus to be on productivity.

**Performance -** the biggest cloud computing services run on a worldwide network of

secure data centres, which are regularly upgraded to the latest generation of fast and

efficient computing hardware. This offers several benefits over a single corporate data

centre, including reduced network latency for applications and greater economies of

scale. Individuals are also able to access this to take advantage of the performance

offered by a cloud service.

Reliability - with the movement away from physical storage such as server rooms and

storage devices such as hard drives; mobile phones; USB drives etc. Data is more

readily accessible with the improved ability for data backup, disaster recovery, and

business continuity through a cloud network. Dramatically reducing the likelihood of any

data loss.

**Security -** many cloud providers offer a broad set of policies, technologies, and controls

that strengthen your security posture overall, helping protect your data, apps, and

infrastructure from potential threats. This benefit both individuals as well as business

organisations. (Source: https://azure.microsoft.com/en-us/overview/what-is-cloud-computing/#cloudcomputing-models)

**Disadvantages of this technology include the following:**

With all the speed, efficiencies, and innovations that come with cloud computing, there

are, naturally, risks.

Security has always been a big concern with the cloud especially when it comes to

sensitive medical records and financial information. While regulations force cloud

computing services to shore up their security and compliance measures, it remains an

ongoing issue. Encryption protects vital information, but if that encryption key is lost, the

data disappears.

Servers maintained by cloud computing companies may fall victim to natural disasters,

internal bugs, and power outages, too. The geographical reach of cloud computing cuts

both ways: A blackout in California could paralyse users in New York, and a firm in Texas

could lose its data if something causes its Maine-based provider to crash.

As with any technology, there is a learning curve for both employees and managers. But

with many individuals accessing and manipulating information through a single portal,

inadvertent mistakes can transfer across an entire system.

**There are 4 types of cloud services: IaaS, PaaS, Serverless, and SaaS**

Knowing what they are and how they are different makes it easier to accomplish business

and individual goals. Each service is stackable and progresses from the most basic IaaS

to a completely virtual service (SaaS). Regardless of the kind of service, cloud computing

services provide users with a series of functions including email, storage, backup, and

data retrieval; creating and testing apps; analysing data; audio and video streaming.

delivering software on demand.

**Infrastructure as a service (IaaS)**

The most basic category of cloud computing services. With IaaS, you rent IT

infrastructure—servers and virtual machines (VMs), storage, networks, operating systems

**Platform as a service (PaaS)**

Platform as a service refers to cloud computing services that supply an on-demand

environment for developing, testing, delivering, and managing software applications.

PaaS is designed to make it easier for developers to quickly create web or mobile apps,

without worrying about setting up or managing the underlying infrastructure of servers,

storage, network, and databases needed for development.

**Serverless computing**

Overlapping with PaaS, serverless computing focuses on building app functionality

without spending time continually managing the servers and infrastructure required to do

so. The cloud provider handles the setup, capacity planning, and server management for

you. Serverless architectures are highly scalable and event-driven, only using resources

when a specific function or trigger occurs.

**Software as a service (SaaS)**

Software as a service is a method for delivering software applications over the Internet,

on demand and typically on a subscription basis. With SaaS, cloud providers host and

manage the software application and underlying infrastructure, and handle any

maintenance, like software upgrades and security patching. Users connect to the

application over the Internet, usually with a web browser on their phone, tablet, or PC.

(Source: https://azure.microsoft.com/en-us/overview/what-is-cloud-computing/#cloud-computing-models)

The consensus amongst IT professionals, CIO’s, and CEO’s of the use of cloud

computing and its future, is the adopting of hybrid IT solutions – the utilisation of public

cloud and private cloud networks, with the gradual phasing out of physical on premises IT

infrastructure.

“Traditional data centres and the traditional model of delivering IT services will become

extinct. The days of building your own data centre, owning your own equipment and

installing/updating hardware will leave us rapidly. There will be some on premise

solutions, but that will diminish dramatically.” (Source: David Hartley, Virtual CIO & Principal,

Technology Advisory Services for UHY LLP, https://www.futureofeverything.io/future-of-cloud-computing/)

As has already been outlined, the development of cloud technology has changed the

technological landscape of Information Technology.

Mike Smith (Founder of AeroComInc.com) foresees the following changes and

developments in the industry:

“In the next 15 years, the biggest change we’ll see is 50% of small companies (with 1-500

employees), doing away with buying computer towers and servers and instead, adopting

Desktop as a Service (DaaS), as the method for deploying workstations to employees.

Companies will simply buy a monitor, keyboard, mouse, and a thin client (which basically

controls the keyboard, mouse & monitor), for each workstation. All the desktop

appearance, applications, and compute functionality will be handled by a 3rd party cloud

provider.

This will allow employees to essentially have the exact same computer appearance,

regardless of the device or their location. It will also allow companies to more easily

manage the deployment and security of computers and applications, across all devices

and locations.

Furthermore, companies will never have to worry about having the latest version of any

major productivity software, such as Office, Adobe, etc.” (Source: https://

www.futureofeverything.io/future-of-cloud-computing/)

The most notable change will be the movement away from on-site physical servers and

data centres and even the possible reduction in storage space and memory in personal

devices – with data storage readily accessible via an internet connection.

Budding developers and application creation (and hosting) will become more prevalent, in

particular with SaaS. With self-service and access to computing resources at your

fingerprints, the engaging of IT service providers will decrease over time. Likewise, for the

reliance on technical support with the need for IT field technicians becoming redundant

with 3rd party cloud service providers footing the bill for service and maintenance for their

data centres.

In my daily life, this will enable me to access any data, photos, documents etc. that I have

stored on a cloud service (e.g. Google Drive). In terms of IT itself, I will be looking more at

the development side that the cloud service provides (SaaS) for applications – with the

potential to create an app that will benefit others and share it. As a student I currently

have access to a Canvas, which allows students to access course content and

announcements, submit assignments, and receive grades and feedback (Canvas is a

rapidly growing, cloud-based service that helps improve student and faculty collaboration

by integrating Web services such as Google Drive, Calendar, SMS, social media, and RSS

Source: https://www.internet2.edu/products-services/cloud-services-applications/canvas/ ).

At this stage I will adopt the use of cloud services more and more over time, there will be

less of a need to buy hardware and storage/memory devices, with only the basic

hardware with an internet connection allowing access to a cloud with a near unlimited

amount of virtual memory (at a cost). The use of clouds for collaboration, sharing and

accessing of various media will be more and more relied upon because of its

convenience, both personally and by businesses and organizations (potential employers).

For both family and friends, once they realise the benefits (if they are not already utilizing a

cloud service) will adopt the use of a cloud service to share, access media, store data

and conduct business with the advantages it presents. I am currently aware of a family

member currently using O365 (which uses the Azure Cloud) for work purposes to access

the full suite of MS Office products and in particular SharePoint. The use of cloud

computing is the future of IT for all users, with the innovation it brings far outweighing the

disadvantages with developments in the areas it currently lacks to improve it.

**References:**

1. https://www.futureofeverything.io/future-of-cloud-computing/

2. https://en.wikipedia.org/wiki/Cloud\_computing

3. https://au.pcmag.com/file-syncing-and-backup-1/3696/the-best-cloud-storage-and-file-sharingservices-

for-2020

4. https://azure.microsoft.com/en-us/overview/what-is-cloud-computing/#cloud-computingmodels

5. https://www.futureofeverything.io/future-of-cloud-computing/

6. https://www.futureofeverything.io/future-of-cloud-computing/

7. https://www.internet2.edu/products-services/cloud-services-applications/canvas/

**Project Ideas**

[#24 Meeting 1] meeting minutes

|  |  |
| --- | --- |
| Location: | [Microsoft Teams/Discord] |
| Date: | [04th of October,2020] |
| Time: | [12pm, 6pm] |
| Attendees: | [Motiana, Joanne, Simon, Mason, Roshan, Amer ] |

# Agenda items

1. [Meet and greet session]
2. [Check members availability]
3. [decide on a meeting schedule]
4. [Set up Discord server for members who are unfamiliar with Microsoft Teams]
5. [Discussion on allocation/delegation of team tasks]
6. [Proposed meetings and project planning]

| Action items | Owner(s) | Deadline | Status |
| --- | --- | --- | --- |
| [Group set up in canvas] | [Roshan Khadka] | [04-10-2020] | [Complete] |
| [Start Discussion board thread on canvas] | [Roshan Khadka] | [04-10-2020] | [Complete] |
| [Set up Discord server] | [Mason Brown] | [04-10-2020] | [Complete] |
| [2nd meeting scheduled] | [Amer] | [07-10-2020] | [Complete] |
| [2nd Discussion Board thread on Canvas with a proposed plan] | [Amer] | [04-10-2020] | [Complete] |
| [Create Github repository for the group] | [Amer] | [04-10-2020] | [Complete] |

**Additional Notes:** Today’s meeting was an all-day event, members logged in and out according to their availability, some had trouble downloading Teams and were happy to meet using Discord at least for now. Motiana created Teams forum A2 #24 for the group and conducted first meeting at 630pm. Members agreed on conducting meetings using Microsoft Teams from now onwards. It was agreed that at least 4 formal meetings will be conducted. It was agreed that all individual responses and allocated team responses will be posted on group repository and integrated into one Master document. Roshan posted the link to his assignment and suggested everyone should do the same. Roshan also reported that documents couldn’t be uploaded to group repository citing possible access issues in the settings. Documents were uploaded using a fork instead. Meeting concluded

[#24 Meeting 2] meeting minutes

|  |  |
| --- | --- |
| Location: | [Microsoft Teams] |
| Date: | [07th of October 2020] |
| Time: | [730 pm] |
| Attendees: | [Motiana, Joanne, Simon, Mason, Roshan, Amer] |

# Link to meeting recording

<https://web.microsoftstream.com/video/544de940-3bbc-433c-a119-12be69cdb09f>

[](https://web.microsoftstream.com/embed/video/544de940-3bbc-433c-a119-12be69cdb09f?autoplay=false&showinfo=true)

# Agenda items

1. [It’s easy to make this template your own. To replace placeholder text, just select it and start typing. Don’t include space to the right or left of the characters in your selection.]
2. [Apply any text formatting you see in this template with just a click from the Home tab, in the Styles group. For example, this text uses the List Number style.]
3. [To add a new row at the end of the action items table, just click into the last cell in the last row and then press Tab.]
4. [To add a new row or column anywhere in a table, click in an adjacent row or column to the one you need and then, on the Table Tools Layout tab of the ribbon, click an Insert option.]
5. [Agenda item]
6. [Agenda item]

| Action items | Owner(s) | Deadline | Status |
| --- | --- | --- | --- |
| [Action item 1] | [Name(s) 1] | [Date 1] | [Status 1, such as In Progress or Complete] |
| [Action item 2] | [Name(s) 2] | [Date 2] | [Status 2] |
| [Action item 3] | [Name(s) 3] | [Date 3] | [Status 3] |
| [Action item 4] | [Name(s) 4] | [Date 4] | [Status 4] |
| [Action item 5] | [Name(s) 5] | [Date 5] | [Status 5] |
| [Action item 6] | [Name(s) 6] | [Date 6] | [Status 6] |

[#24 Meeting 3] meeting minutes

|  |  |
| --- | --- |
| Location: | [Microsoft Teams] |
| Date: | [12th of October 2020] |
| Time: | [7pm] |
| Attendees: | [Motiana, Joanne, Simon, Mason, Roshan, Amer] |

# Link to meeting recording: <https://web.microsoftstream.com/video/eec4c9f6-fe6c-4489-a071-129e0d9c4787>

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# Agenda items

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5. [Agenda item]
6. [Agenda item]

| Action items | Owner(s) | Deadline | Status |
| --- | --- | --- | --- |
| [Action item 1] | [Name(s) 1] | [Date 1] | [Status 1, such as In Progress or Complete] |
| [Action item 2] | [Name(s) 2] | [Date 2] | [Status 2] |
| [Action item 3] | [Name(s) 3] | [Date 3] | [Status 3] |
| [Action item 4] | [Name(s) 4] | [Date 4] | [Status 4] |
| [Action item 5] | [Name(s) 5] | [Date 5] | [Status 5] |
| [Action item 6] | [Name(s) 6] | [Date 6] | [Status 6] |

[#24 Meeting 4] meeting minutes (Planned event)

|  |  |
| --- | --- |
| Location: | [Microsoft Teams] |
| Date: | [15th of October 2020] |
| Time: | [7pm] |
| Attendees: | [Motiana, Joanne, Simon, Mason, Roshan, Amer] |

# Agenda items

1. [SparkPLUS Feedback issue to be sorted, Anthony has been emailed by Amer on Tuesday the 13th requesting group registration on the system]
2. [Completion check for **Team Profile, Ideal Jobs,** and **Tools** sections]
3. [Completion check for **IT Work, IT Technologies,** and **Project Ideas**]
4. [Clarifying the timeline for **Group Reflection**, ambiguity in terms of when it is to be completed]
5. [Review formatting and referencing]
6. [Set up schedule for last group meeting prior to submission]

| Action items | Owner(s) | Deadline | Status |
| --- | --- | --- | --- |
| [Action item 1] | [Name(s) 1] | [Date 1] | [Status 1, such as In Progress or Complete] |
| [Action item 2] | [Name(s) 2] | [Date 2] | [Status 2] |
| [Action item 3] | [Name(s) 3] | [Date 3] | [Status 3] |
| [Action item 4] | [Name(s) 4] | [Date 4] | [Status 4] |
| [Action item 5] | [Name(s) 5] | [Date 5] | [Status 5] |
| [Action item 6] | [Name(s) 6] | [Date 6] | [Status 6] |

[Meeting name] meeting minutes

|  |  |
| --- | --- |
| Location: | [Address or room number] |
| Date: | [Date] |
| Time: | [Time] |
| Attendees: | [List attendees] |

# Agenda items

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[Agenda item]

[Agenda item]

| Action items | Owner(s) | Deadline | Status |
| --- | --- | --- | --- |
| [Action item 1] | [Name(s) 1] | [Date 1] | [Status 1, such as In Progress or Complete] |
| [Action item 2] | [Name(s) 2] | [Date 2] | [Status 2] |
| [Action item 3] | [Name(s) 3] | [Date 3] | [Status 3] |
| [Action item 4] | [Name(s) 4] | [Date 4] | [Status 4] |
| [Action item 5] | [Name(s) 5] | [Date 5] | [Status 5] |
| [Action item 6] | [Name(s) 6] | [Date 6] | [Status 6] |