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## Risk Assessment and Project Management Worksheet for Workshop Week 10

### Instructions

Work in pairs to discuss and the answers to the questions below.

Each student is expected to complete and submit their own worksheet i.e. partner collaboration ends when it comes to producing the required artefacts – goals, network diagram, Gantt chart, risk assessment matrix, control sheet i.e. all but the answers for 1.1 and 1.2.

Submitting the same artefact as another student for one or more of the questions [1.3 - 4.2] will be considered to be plagiarism.

All students involved will be awarded 0 marks for this workshop, and they will be reported for an academic integrity breach.

Clearly state any assumptions you make.

Submit one PDF only!

### Exercise 1. Project Stakeholders, Deliverables and S.M.A.R.T. Goals

1.1 Who are the project stakeholders? What are their roles and responsibilities? Add as many rows as needed.

	Stakeholder	Role	Responsible for
	Board of Directors	Starting the project	<ul style="list-style-type: none"><li>- Approve project scope and budget</li><li>- Review feasibility results</li><li>- Provide strategic direction</li></ul>
	IT department	Project leads and technical execution team	<ul style="list-style-type: none"><li>- Responsible for managing the implementation and technical aspects</li><li>- Set up infrastructure (networks, PCs, phones)</li></ul>

			- Ensure security and system performance
	Finance department	Overseeing budgeting, and funding	- Approve and monitor budgets - Ensure financial compliance - Track cost performance
	Marketing department	Provided customer satisfaction data that triggered the project; gives information and advice on customer needs	- Share insights from customer satisfaction surveys - Advise on user experience for call centre design

## 1.2 What is the project deliverable (or deliverables)?

The main deliverables of the project are:

- Fully operational in-house call centre located in a 100 square meter office space
- Fit out of the office space, including furniture installation
- Installation and setup of 30 desktop computers, 30 IP phones, Other equipment such as networking, servers, and headsets.
- IT and communication systems setup to support call centre operations
- Documentation and handover for ongoing management and support.

1.3 Define at least two S.M.A.R.T. goals for the project. These goals should be different to the two listed by your partner.

### Goal one:

Install and configure all IT infrastructure (including 30 desktops, 30 IP phones, and network equipment) within 9 weeks of project commencement, ensuring 100% readiness for testing by the end of Week 9.

**Specific:** Focused on IT infrastructure.

**Measurable:** Equipment installed and configured.

**Achievable:** Reasonable timeframe with a dedicated IT team.

**Relevant:** Important to achieve operational status.

**Time-bound:** Deadline is end of Week 9

### Goal two:

Complete the full office fit-out and facility readiness (furniture, power, HVAC, etc.) by the end of Week 6, ensuring the space is ready for equipment installation.

**Specific:** Targeted on physical workspace preparation.

**Measurable:** Fit-out completed and space signed off as ready.

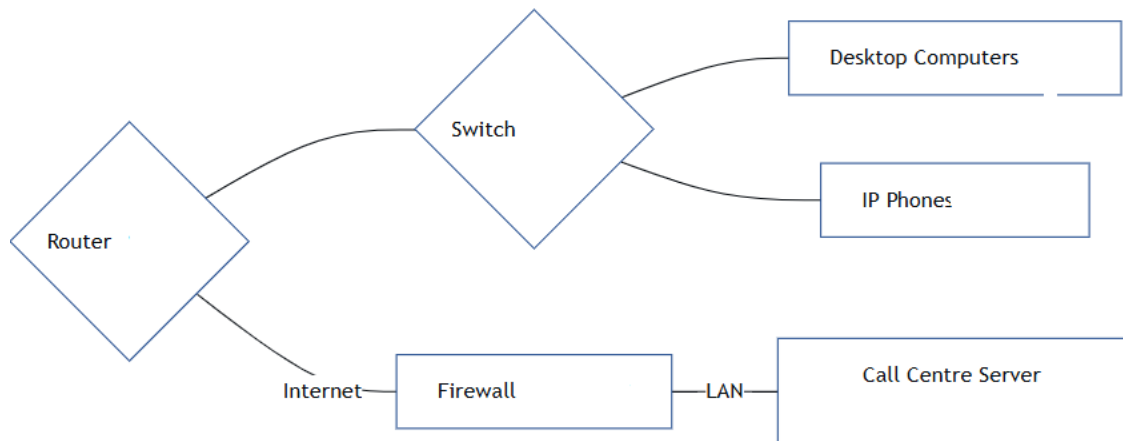
**Achievable:** Given a 6-week timeline for contractors and vendors.

**Relevant:** A must for the rest of the project work.

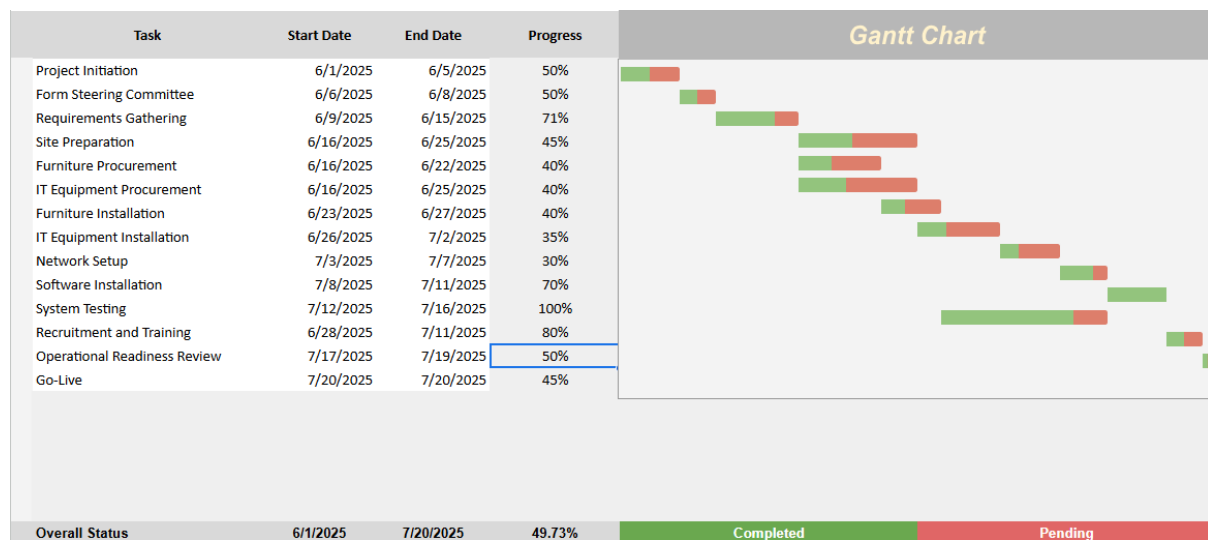
**Time-bound:** Deadline is Week 6.

## Exercise 2. Scope of work and timeline

2.1 Draw a (physical or logical) diagram of the call centre network infrastructure and equipment. Identify any network devices that might be needed to connect it to the rest of the LAN. You can use any drawing tool you like. Suggested diagramming software is Lucidchart, but you can use any other drawing software you like. Either embed or copy and paste below.



2.2. Create a detailed project timeline using a Gantt chart, showing project tasks/activities, task dependencies and milestones. Use the examples from the Week 9 lecture as inspiration for tasks in each stage of the project. You can use any tool you like to generate the chart. Either embed or copy and paste below.



### Exercise 3. Cost estimation, CAPEX and OPEX

3.1 Estimate the cost of equipment and labour for the project. Put it in the tables below. Append as many rows as you need to.

Line	Equipment	Model	Vendor	Qty	Price per unit	Total cost
1	Desktop Computer	Dell OptiPlex 7000	Dell	30	800	24000
2	IP Phone	Cisco 8845	Cisco	30	200	6000
3	Router	Cisco ISR 4331	Cisco	1	1500	1500
4	Switch	Cisco Catalyst 2960	Cisco	2	500	1000
5	Office Furniture Set	Standard Office Desk + Chair	OfficeDepot	30	300	9000

Line	Task / Activity	Hours	Hourly Rate (\$)	Number of People	Total (\$)
1	Furniture Installation	40	30	2	2,400
2	IT Equipment Installation	56	40	2	4,480
3	Network Setup	40	45	1	1,800
4	Software Installation & Testing	72	50	1	3,600
5	Recruitment and Training	280	35	2	19,600

3.2 Is it possible to reduce the cost of the project? If yes, how? Are there items in the costing tables in 3.1 that could be eliminated?

#### Equipment:

- Use refurbished or mid-range desktop computers.
- Replace IP phones with softphone solutions (e.g., Teams, Zoom).
- Consider lower-cost networking hardware from alternative brands.
- Use basic or second-hand office furniture.

#### Labour:

- Outsource installation tasks to vendors offering bundled services.
- Use internal staff for training to avoid hiring external trainers.

3.3 What are items in 3.1 can be considered CAPEX?

Desktop computers: because of long terms hardware use for daily operations

IP phone: physical assets with multiyear usage

Router: Network infrastructure, long term use

Switches: Part of Network backbone, capital asset

Office furniture: depreciated over several years

3.4 What are the ongoing costs in running the call centre (OPEX)? List at least three.

Salaries and wages: regular payments to call centre agents, supervisors, and support staff

Telecommunication and internet services: monthly costs for voice services and internet connectivity

Software licenses and subscriptions: Call management platforms, and security software

## Exercise 4. Risk analysis and risk management

4.1 Identify potential risks for running the call centre. Enter these in a risk assessment matrix to prioritise the risks.

*Note 1: This is not about the risks for successfully completing the project, but the running of the in-house call centre.*

*Note 2: See the slides from the Week 8 lecture for an example*

Risk	Likelihood	Consequence	Risk Level	Justification / Notes
Power outage disrupting operations	Likely	Major	Extreme	High dependency on IT infrastructure; would halt customer service.
Network or internet failure	Likely	Major	Extreme	Core operations depend on reliable internet for VoIP and CRM access.
Cyberattack (e.g., ransomware, phishing)	Possible	Catastrophic	Extreme	Would lead to data loss, financial and reputational damage.
Staff shortages due to illness or turnover	Possible	Moderate	High	Affects ability to meet customer service demand.
Unauthorized access to sensitive customer data	Possible	Major	Extreme	Legal and reputational risk from privacy breach.
Virus/malware infection on call centre system	Possible	Major	Extreme	Can disrupt or compromise customer interactions and data.
Phone system (VoIP) failure	Possible	Major	Extreme	Directly impacts the call centre's ability to operate.
Fire in office space	Unlikely	Catastrophic	High	Can destroy infrastructure; safety systems must be in place.
Flood damage to office or equipment	Unlikely	Major	High	Damage to equipment and interruption of operations.
Customer dissatisfaction due to service disruption	Likely	Moderate	High	Impacts brand reputation and customer retention.
Insider threat (disgruntled employee)	Rare	Major	High	Could lead to sabotage or data theft.

	Consequence				
Likelihood	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	High	High	Extreme	Extreme	Extreme
Likely	Medium	High	High	Extreme	Extreme
Possible	Low	Medium	High	Extreme	Extreme
Unlikely	Low	Low	Medium	High	Extreme
Rare	Low	Low	Medium	High	High

4.2 Develop a Risk Management Plan documented in a Control Spreadsheet.  
*See the slides from the Week 8 lecture for an example of a Control Spreadsheet.*

Asset (Priority)	Fire	Flood	Power Loss	Circuit Failure	Virus	External Intruder	Internal Intruder	Eavesdrop			
Call Centre Workstations (30 PCs)	Fire extinguishers installed; evacuation d	Raised desks, floor cabling protectio	Backup UPS	Surge protectors, tested cable	Endpoint antivirus and update	Secured network perimeter	Staff monitoring, restricted admin rights	Headset encryption, call log monitoring			
IP Phones (30 units)	Flame-retardant cables, safe installation	Wall-mounted, above flood line	PoE switch with UPS	Alternate switch ports	Firmware updates	Secure VoIP gateways	Staff access restrictions	Encrypted VoIP calls			
Call Centre Software (CRM, VoIP)	Cloud-based backups	Cloud-based setup where possible	Hosted solution redundancy	Redundant servers	Regular patching, AV scanning	Multi-factor authentication	RBAC, activity logs	Data encryption			
Call Recordings/Data Storage	Fireproof data storage or cloud	Offsite/cloud backup	Data centre UPS	RAID & mirrored storage	Anti-malware scanning	Network firewall, encrypted storage	User role tracking, logging	Call encryption			
IT Infrastructure (Switches, Router)	Rack-mounted in fire-protected cabinet	Raised platform, sealed racks	Central UPS system	Backup switches	Security patches	Admin interface restricted	Logs and alerts on misuse	Shielded cabling			
Customer Data (PII, interactions)	Offsite backup policy	Water-damage-safe storage	Generator/UPS for DB server	Redundancy	Encryption at rest & transit	Firewall, intrusion prevention	Data access by roles only	Use of TLS, end-to-end encryption			
Call Centre Staff	Fire exits marked, trained evacuations	Emergency water plans	Alternate work-from-home protoco	Redundant phone lines	Cyber hygiene training	Background checks, badge access	Monitoring of user activity	Awareness training			
Office Furniture & Fit-out	Non-combustible materials	Furniture above floor level	Manual override for lighting	Redundant circuits	N/A	Physical security for office	Staff access policies	N/A			