



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

**SECR 1213 - 06**  
**Network Communications**

**Lecturer: Dr. Ts. Raja Zahilah binti Raja Mohd Radzi**

**Task #1**  
**Floor Plan**



**NETLINK SOLUTIONS**

**Group 4: NetLink Solutions**

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## Task explanation:

To accommodate the projected 15% growth in both staff and students over the next four years, the Faculty of Computing is expanding its facilities by adding a new two-storey building. This building will include:

Two general-purpose labs,

- One Cisco Network lab for networking instruction,
- One Embedded lab equipped with devices and peripherals for IoT and sensor-based learning,
- A student lounge with wireless connectivity,
- A video conferencing room for virtual meetings,
- And a hybrid classroom designed for flexible teaching and learning environments.

Each lab and the student lounge will occupy a space of 14x10 meters, with each lab containing a total of 30 workstations. The labs will be equipped with high-speed internet connections to support modern education aligned with the Fourth Industrial Revolution (4IR). Specifically:

- The Cisco lab will be outfitted with networking devices for teaching and training purposes.
- The Embedded lab will be furnished with relevant peripherals and devices to support hands-on learning.
- The student lounge will feature wireless access points to provide convenient Wi-Fi connectivity for students

## Meeting minutes #1:

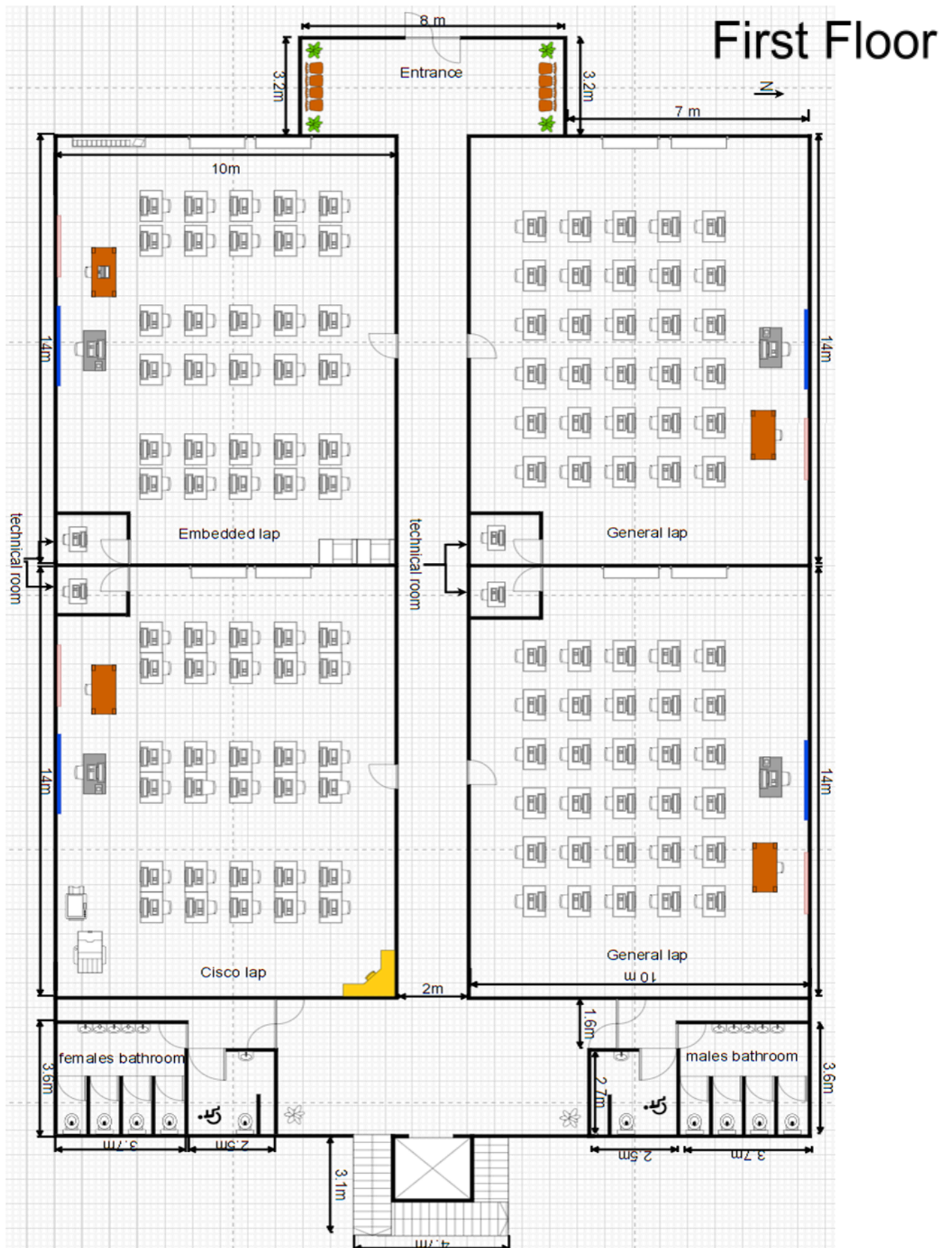
Date/time	11/10/2024, 8:30 p.m.		
Location	Google Meet (online)		
Meeting discussion task	1. Discussing the task. 2. Discussing the floor plan construction 3. Drawing application 4. Tasks division 5. Next meeting		
Meeting MC	Abdalla Ali Abdalla Ali		
Attendance			
Name		Time	Reason of absence
1-	Abdalla Ali Abdalla Ali	8:30	---
2-	Nouredin Mamdouh	8:30	---
3-	Mohammed abdelgawwad	8:30	---
Minutes			
No	Item discussed	Result	Person in charge/Time
1.	The given task.	Noureldin thoroughly read the task and explained each part in details, while explaining some terms, the team had a good understanding of the overall task.	Nouredin Mamdouh (8:30 – 8:39)
2.	the floors’ plan.	Each member gave a rough sketch of his plan, and then a brief discussion about the most suitable combination of designs, in terms of cost and aesthetics, Abdalla drew a good illustration of the design and explained it can be the most suitable.	Abdalla Ali (8:47 - 8:59)

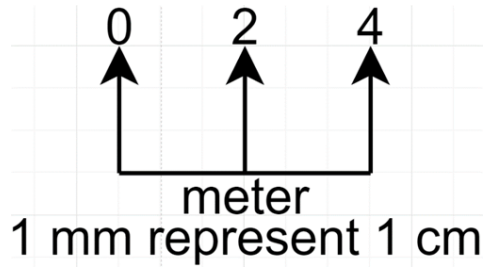
<b>3.</b>	<b>Drawing application</b>	Abdalla suggested to use adobe illustrator as a drawing tool, Nouredin and Mohammed suggested trying different tools due to lack of experience and being hard to edit designs, Mohammed Abdelgawwad suggested using Drawio website, both Abdalla and Nouredin tried to test the website, and both approved of the tool.	Mohammed abdegawwad (9:00 – 9:13)
<b>4</b>	<b>Tasks division</b>	Each member obtained a copy of the floor design file and everyone can work on the same design from his device, Nouredin as a group leader explained the parts for the members. Each member has an idea about his role in the designing phase.	Nouredin Mamdouh (9:15 – 9:20)
<b>5</b>	<b>Next meeting</b>	Mohammed suggests to finish the whole design and report and meet again to discuss how it will look in the final.	Mohammed Abdelgawwad (9:20 – 9:22)
<b>Meeting ended</b>		9:22	

## Meeting minutes #2:

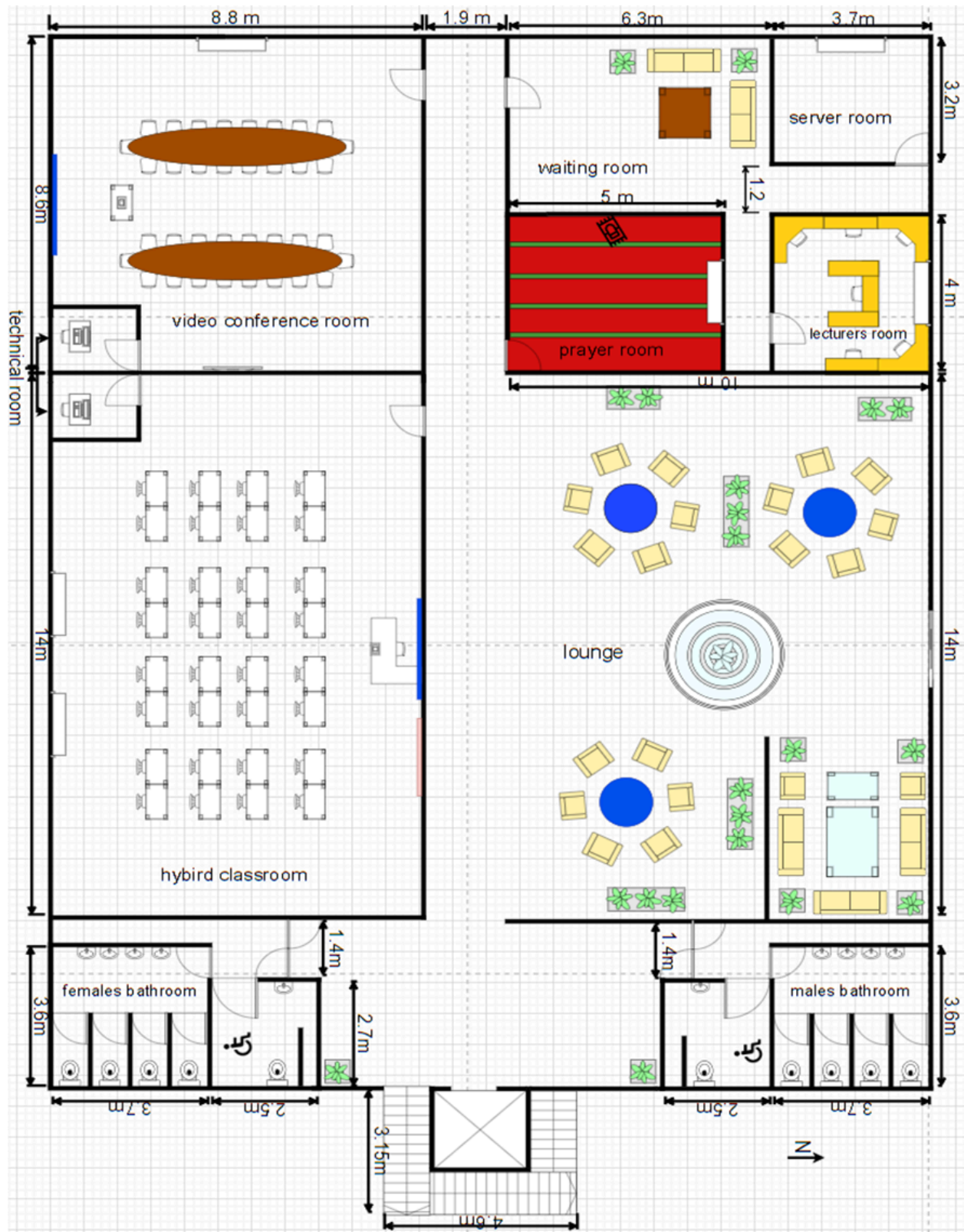
Date/time	13/10/2024, 8:00 p.m.		
Location	Google Meet (online)		
Meeting discussion task	1. The interior design 2. What devices will be added 3. Colouring and aesthetics 4. Team motivation		
Meeting MC	Abdalla Ali Abdalla Ali		
Attendance			
Name		Time	Reason of absence
1- Abdalla Ali Abdalla Ali		8:00	---
2- Nouredin Mamdouh		8:00	---
3- Mohammed abdelgawwad		8:00	---
Minutes			
No	Item discussed	Result	Person in charge/Time
1.	The interior design	Abdalla suggested adding workstation and technical room, other members approved.	Abdalla Ali (8:00 – 8:11)
2.	What devices will be added	Nouredin briefly explained that in task 1, no devices should be added and could be added in next tasks.	Nouredin (8:11 – 8:21)
3.	Colouring and aesthetics	Mohammed suggested a small change in the lounge design to be more appealing and Nouredin suggested colouring	Mohammed abdegawwad 8:21 – 8:30)
4.	Team motivation	Mohammed Abdelgawwad said that our collaborative work will result in good consequences(Godwilling).	Mohammed Abdelgawwad (8:30 – 8:33)
Meeting ended		8:33	

# Suggested Floor Plan:






























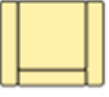
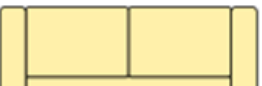


## Second Floor





## Symbols:

	Projector	(20x30)cm		Fountain	R 147.5
	Wall Screen Projector	(10x260) cm		Breaker Panel	(100x60)cm
	Whiteboard	(10x205) cm		Meeting Table	(138x56)cm
	Air Conditioner	(34.5x165)cm		Workstation	(100x88.7) cm
	Door	(80x75) cm		Laptop	(40x35.5)cm
	Flowerpot	(45x60) cm		Bookcase	(210x30) cm
	Chair	(50x40) cm		Cabinet	(80x110) cm
	Table	(90x50) cm		Copier	(109x60) cm
	Table 2	R 62.5 cm		Printer	(138.5x93) cm
	Desk Corner	(150x150) cm		carpet	(77.13x77.13)cm
	Sink	(27.5x40) cm		window, glider	(200x10) cm
	Toilet	(65x50) cm		double door	(160 x 75) cm
	Elevator	(202.5x220) cm		flat TV	(140x10) cm
				flower pot	(60x60) cm
				sofa	(70x60) cm
				double sofa	(175x58) cm

## Design explanation:

The ground floor is a general design containing all the laps, it provides comfortable area for waiting, and large laps that suitable for all students, on the north direction there are two general laps with their workstations with a projector and teacher's working station, on the south we can see the embedded lap which contains a large bookcase and two devices cabinet, the other lap on the south is cisco lap contains a printer and a photocopier to enhance learning and teaching, each lap has two air conditioners and features a technical room that will help wiring and controlling the network while also being able to fix most of the connection problems that might be faced in the future, the technical room give the ability to comfortably control most of the connection, the ground fool also features a restroom for males on the north and for females on the south, and lastly it provides a medium size elevator with a choice of stairs.

The first floor is a general design that host many different rooms, including males' bathrooms on the north and females' bathrooms on the south, a student lounge on the north that can hold many students and can relax, study or do different social activities, also it features a large area containing a medium size praying room, lecturers' room, small waiting room and a server room, which will be main control room for the network and data flow, on the south you will find a video conference room which will install a video projector, and a long flat T.V. , and technical room to control the communication and the network, it also contain a hybrid classroom for advance learning and best performance, with its own control room for controlling its own network.

The design in general focuses on the overall aesthetics like the plants and the fountain, it also focuses on cost-efficiency, and the comfort of all the students and staff, the design will optimize the area for the network so it can be easily distributed and wire while giving maximum connectivity length.