



1/1/2024

CMPG 315

Project Task 1



Group 04

NORTH-WEST UNIVERSITY

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Group Task 1: Preparation (Reflections)

Bégué, Jean-Luc (40779173)

I've developed a number of soft skills through various courses that are crucial for both professional and personal development. The Mini Course on Time Management's emphasis on time management helped me learn how to set priorities for my work, manage my time well, and stay focused in the face of distractions. My cooperation abilities have been enhanced by Git that started with GitHub and Become an Expert in Git & GitHub, which emphasizes effective communication, teamwork, and dispute resolution throughout project work. Project and project management taught leadership skills that are essential for managing successful projects, include goal-setting, work delegation, and change adaptation. Additionally, by modeling actual networking situations and encouraging analytical thinking and troubleshooting techniques, Cisco Packet Tracer improved my problem-solving abilities. Together, these classes cultivated resilience, flexibility, and a proactive mentality that enabled me to effectively tackle problems in a variety of professional situations. The soft skills I've gained are priceless assets that have shaped not just my professional path but also my personal growth and pursuit of lifelong learning.

Cloete, Jacques (44214987)

The first thing I noticed from the Mini Course on Time Management was that I make myself busy with things other than the important thing that needs to be done which is a form of laziness and procrastination. By investing the beginning my day into myself instead off others will help me to maintain a clear mind as well as be more productive throughout the day. I took plenty of notes from this course in order to organize my tasks, schedules, and priorities efficiently. From past experience I have realized that spreadsheets don't work that well for me, but the rest of the content provided was a good refresher of the concepts I already understand. By seeing time management as a tool, I can feel more positive and self-aware about my habits and the areas of my life that need improvement. By managing my time, I can try to achieve my goals easier than before when I was not implementing these soft skills learned in the courses. The "Git Started with GitHub" course was a very good introductory course, it had lots of hands-on practice and theory about Git and GitHub. I feel that my teamwork soft skill has been greatly improved after this course, especially by the fact that this skill is used quite often in the software development world. I am looking forward to applying the knowledge I have learned.

Coetzee, Christian (40513262)

The following courses were expected to be completed.

- Course 1: “Manage your time.”
- Course 2:” Git started with GitHub.”
- Course 3: “Git expert 4 hours”
- Course 4: “Project and Project management”
- Course 5: “Cisco Packet Tracer”

Course 1 taught me about how the management of your time can change your life for the better. Just sleeping and waking up at a set time everyday can improve your mood/ energy for the rest of your day. Consequently, this course made me rethink my routines (or lack thereof) and implement some elements that they mentioned.

Course 2 was a recap about concepts that I already knew from other modules and courses. But it seemed like a good way to understand how Git (GitHub) works as the core was always command line “prompting”. I would also say the same about course 3 as it went more in depth about how the functions work and how to enable some of them (via command line).

I read the materials given by course 4 as they were easier to understand than the person narrating. It was interesting to see how one would such techniques in projects and development.

Lastly, course 5 was very entertaining and interesting to learn. It taught me the different things to look out for and how different components/ devices/ cables work dependently and independently. I enjoyed this course very much.

De Meyer, Maderi (50977676)

The first course gave 7 practical steps for time management. The quote “It is not that we have a short time to live, but that we waste a lot of it,” made me think twice about how efficiently I use my time and in what I invest it. I should have set rituals and minimize the number of potential distractions I have around me.

The second course gave me an overview of GitHub, from installing it, setting up a project folder and using the pushing feature, to command references. The third course went into more depth, and covered all the basics of Git, as well as GitHub and SourceTree. This is a great tool to use when multiple people have to work on the same program and is therefore ideal for group projects.

The course about projects and project management outlined the fact that I should first understand the structure of the project, before just rushing into it. Project management process groups consist of initiating, planning, executing, monitoring, controlling, and closing. It taught me the different knowledge areas for project management.

Furthermore, it explained different schedule management techniques: Three Point Estimates, PERT and Critical Path Methods as well as precedence diagramming methods, dependency determination and schedule network analysis. Lastly it provided a few tools that will assist in project management.

In the last course, I learned what Cisco Packet Tracer is, how it works, the different file types, and how to build a network, configure end devices and verify connectivity.

Le Roux, Danika (41049764)

I have really developed and refined a number of soft skills during these courses that are essential for both career and personal growth.

The "Manage Your Time" course's lesson on time management has been quite beneficial. I now know how to maximize productivity, prioritize activities, and create attainable objectives. This ability has helped me manage my job and personal lives better by lowering stress and increasing efficiency.

Participation in the Git and GitHub classes improved teamwork and communication abilities. Acquiring proficiency in version control systems promoted smooth collaboration, resulting in efficient coordination and communication. Smooth cooperation was guaranteed via explicit commit messages and branching mechanisms, highlighting the significance of accuracy and clarity in concept communication.

I gained the organizational abilities necessary for project planning, execution, and evaluation from project management classes. Comprehending project scopes, timeframes, and stakeholder management enhanced my capacity to effectively lead and participate in initiatives. I also learned more about decision-making and problem-solving techniques, which are essential for overcoming obstacles in a variety of project situations.

Finally, using Cisco Packet Tracer improved my technical expertise and flexibility. Quick thinking and troubleshooting abilities were necessary to navigate intricate network simulations, which promoted adaptation in quickly changing contexts.

In summary, these classes have not only given me the technical know-how I need, but they have also helped me develop the soft skills necessary for both professional and personal development. The skills acquired are priceless for managing a variety of aspects of life and business, from time management to teamwork and flexibility.

Mooiman, Henk (41293584)

Reflecting after completing these courses made me realize that this process enriched my life with practical skills and invaluable insights. Initially I was worried about when I would find time to complete and work through all of these courses. After I started with the first course which was time management, I realized that this task was completely possible. I managed to rearrange all my other daily activities to make space for this project. Learning to prioritize certain tasks, to allocate resources effectively, and to mitigate procrastination has not only improved my life for the better, but also reduced some of my stress.

Initially navigating GitHub seemed extremely difficult, but as the courses progressed, I grasped its essence of collaboration between developers and how it is a version control software to safe-guard the projects you are working on, and also share the projects with others and collaborate with them easily. Project management principles and the technique to mitigate the project constraints such as cost, time and scope is very valuable information. I will certainly use it in this project, since working with a team and meeting deadlines was an area I was rather unsure about, but essential for this project.

Cisco Packet Tracer introduced me to the world of network simulation, how network configurations work, as well as the different troubleshooting methodologies. This hands-on experience solidified my knowledge and comprehension of networks.

I am looking forward to implement this new knowledge in this project.

Nieman, Waldo (37943278)

The main objective for this task was to complete 5 different online courses and write a reflection in which you discuss the soft skills you have learned upon completing these online courses. I found each of the courses very interesting and helpful, I learned a few new things in each of the courses but there were a few things that stood out for me and changed my perspective.

In the past, I have struggled to properly manage my time and fit everything into my daily schedule. Through these courses, I've learned that I should only spend time on the things that will benefit my future and will give me something in return, and work for short periods but work productively (put away all distractions).

The courses on GitHub and Project Management gave me more certainty on working effectively within a group. I now understand GitHub a lot better this course clarified a lot of uncertainty for me, and I feel a lot more confident in working with GitHub and exploring the great features that GitHub has to offer for group projects. The course on cisco packet tracer was very loaded with information, I learned more about networks (cables, devices, etc) I found this course very interesting and helpful.

These courses changed the way I look at certain things and my perspective on group work and how easy it can be if you use helpful tools, I look forward to implementing the things I've learned in the rest of this project.

Pretorius, Andre (41093615)

Throughout these courses I have learned several new soft skills. In terms of time management, I have learned that my time has to be invested into activities that would benefit me, instead of just wasting my time on menial tasks. Instead of thinking about what I need to work on or do at the present moment, I have learned to plan my daily activities and set goals for myself. Through planning my day, I have been able to accomplish much more than in the past. I have also learned to work in chunks of uninterrupted time and to fully cut out all distractions that might interfere with my concentration. Since I have been organizing my goals from most to least important, I have learned to accurately divide my time between these goals. I have also learned to use Git and GitHub to its full extent and learned about several new features. I now better understand how Git and GitHub works in terms of version control and how it tracks changes to files on several different devices. By completing the Cisco Packet Tracer course, I have learned that it is used to practice building networks and how it can be integrated with various other technologies to form more complex network systems.

Soft Skills Learned from Udemy Courses

Engaging in the Udemy courses provided valuable insights into soft skills essential for personal and professional growth. A fundamental principle emphasized was the distinction between education through application versus mere memorization. This concept resonated deeply, highlighting the importance of practical implementation over rote learning.

Time management emerged as a pivotal skill, with Seneca's wisdom echoing the significance of utilizing time effectively for meaningful accomplishments. Through techniques like redefining time management, establishing routines, and prioritizing tasks based on the 80/20 rule, I learned to optimize productivity and achieve desired outcomes efficiently. Moreover, understanding the value of planning, tracking progress, and embracing gradual change reinforced the notion of continuous improvement.

In the realm of project management and Git, collaboration and communication skills were honed. Learning about project management processes and Git fundamentals underscored the importance of clear communication, effective teamwork, and adaptability in achieving project goals. The courses provided practical strategies for navigating project phases, managing stakeholders, and leveraging version control tools for seamless collaboration.

Moreover, the courses facilitated the development of critical thinking and problem-solving abilities. By delving into complex concepts and practical applications, I cultivated a deeper understanding of project management principles and Git functionalities, enhancing my analytical skills and decision-making capabilities.

Overall, the Udemy courses not only equipped me with technical proficiencies but also fostered essential soft skills vital for success in various domains. Through reflection and application of these learnings, I aspire to continually refine my skill set and contribute meaningfully to future endeavors.

Van Tonder, Anri (37328409)

The first training “A Mini Course on Time Management”. The 80/20 rule is brilliant for helping and prioritising one’s goal, with time left to do other smaller, yet necessary tasks. This, along with the point of having no distractions, were my biggest learning points from this course.

Reflection on “Git Started with GitHub” and “Git: Become an Expert on Git & GitHub in 4 Hours” training. I have previously used GitHub but without Git Bash. Revising was helpful in better understanding what each functionality was for. An example of this would be realising the difference between cloning and forking.

What I gathered is that Git Bash can be more versatile than Git Desktop, although I initially thought it was unnecessarily complex. Git source tree, on the other hand, I found more familiar because of the GUI. I found this helpful with the visualisation of repository history, changes made and managing workflow.

Through the “Project and Project Management #” training, I have learnt that the project structure is a good blueprint for success. Additionally, project management tools such as MS Projects and Primavera P6 can greatly aid in productivity through visualisation and communication.

For the “Getting Started with Cisco Packet Tracer” training, I learnt how to configure network interfaces and design networks. I also learnt of other features such as network topologies, routing protocols and real-world networking challenges.

The abovementioned is only the tip of the iceberg of what I learnt. I hope to hone these skills throughout the rest of the project.

[252 words]

Group's working procedure:

Summary of work ethic from group:

When work would be done:

- We would all try to do our part when possible. For example:
 - After classes (potentially alone at home), late nights (if necessary) and when we have group meetings.
 - Some people also work better alone and some work better with groups. So, a dynamic approach could be considered where we use discord etc.

Where work would be done:

- If some were to work alone, it would typically be where one could concentrate on the tasks. For example, a library, home or maybe even in classes.
- If some were to work in groups, it would be at someone's house/ flat, or a conference room at the library, or even at a public area inside campus (like on grass, or Monday class etc.)

Manner of work being done:

- We should all try to help each other whenever possible but be certain not to take advantage of this help received.
- Try to finish best to our abilities and understanding.
- If we were to struggle with a task, to ask for second opinion to ensure your thought process was correct.
- The members are serious about their work and known for putting effort in their work, thus no slacking should be expected.

What group considers a delinquency:

- Absence from group meetings
- Not contributing and adding value to group
- Slacking with work and not making deadlines
- Not pulling one's own weight.
- Disrespecting one another
- Plagiarism in terms of "copying and pasting" work that was already done by someone/ something else. For example, a former student etc.
- Lying and dishonesty
- Substandard quality of work

Communication Channels and collaborations:

WhatsApp groups were used to arrange a time and place for meetings as well as sending relevant documentation on. Sometimes phone calls would also be made to try to understand some concepts when a meeting would not be able to be arranged. Discord was also used for a meeting when not everyone was in Potchefstroom, it was also used to work together on some rooms (network diagram Packet Tracer) by some teams. Otherwise, meetings and small group meetings would be held to discuss expectations and workload etc.

Group Task 2: Continuous Reporting

Notes and attendances:

Group Members Meetings:

Group 4 Meetings

Names	Surnames	Student Numbers	Monday 2024/03/04	Thursday 2024/04/11	Tuesday 2024/05/07	Wednesday 2024/05/14
Jean-Luc	Bégué	40779173	Yes	Yes	Yes	-
Jacques	Cloete	44214987	Yes	Yes	Yes	-
Christian	Coetzee	40513262	Yes	Yes	Yes	-
Maderi	de Meyer	40977676	Yes	Yes	Yes	-
Danika	le Roux	41049764	Yes	Yes	Yes	-
Henk	Mooiman	41293584	Yes	Yes	Yes	-
Waldo	Nieman	37943278	Yes	Yes	Yes	-
Andre	Pretorius	41093615	Yes	Yes	Yes	-
Ariël	Truter	38566567	Yes	Yes	Yes	-
Anri	van Tonder	37328409	Yes	Yes	Yes	-

Group meetings were held in the afternoons. Most members were available in these times.

Notes:

Date	Notes	Conclusion
2024/03/04	Meet and greet. Talked about project and read through the documents. Discussed how the group dynamics could work, for example making smaller teams of two or three. Would ideally be of different skill sets. We also discussed when and where we could meet in the future (agreement on the library, Discord). Use GitHub for documents etc. Lastly, we discussed what everyone should do and then we agreed on a deadline.	We agreed on the following: Completing the course work with deadline of 18 March, creating a GitHub repository, and joining it in the meantime, creating a Discord server, have our meetings in a “boardroom” at the library and choosing a group leader.
2024/04/11	Meeting held on Discord as it was the week where Potchefstroom had some water problems and online classes were allowed to be held. Members were allocated into teams randomly and tasks were also allocated randomly. Everybody also agreed on allocations and draft documentation for project timeline etc.	Discord meeting went well, but some would rather meet in person. Teams of two would have their own meetings where they would do the allocated tasks and record their meeting times.
2024/05/07	Meeting held in the library. We discussed how far we were with our	Everybody gave input and some volunteered to do certain tasks. The

	parts of the tasks and the plan forward in terms of the text messaging app and who is compiling what and when we would go over everything for the final time.	group was divided into Front End, Back End and Front End/ Back End. Front End would design the GUI, Back End would do the necessary coding and the Front End/ Back End team would test the application. Meeting will be held on 15 May 2024.
2024/05/15	Enter here	Enter here

Team meetings:

Team	Members	Rooms Assigned	Meet Date 1	Meet Date 2	Attendees
1	Cloete, Le Roux	13 Offices	2024/04/24	-	Cloete, Le Roux, *
2	Bégué, Pretorius	Reception, Open Floor Space	2024/04/18	2024/04/24	Bégué, Pretorius, *
3	Mooiman, Nieman	Server Room	2024/04/19	2024/04/25	Mooiman, Nieman, *
4	De Meyer, Truter	Kitchen, Meeting room, Open Floor Space(optional)	2024/04/17	2024/04/18	de Meyer, Truter, *
5	Coetzee, van Tonder	Technicians' Office	2024/04/16	-	Coetzee, van Tonder

**Coetzee attended first meeting of team to clarify what is expected.*

Team meetings were held when both members were available. Ranged from 07:30 to 18:30.

Compiling Packet Tracer files:

Members	Date	Time	Attended
Anri	2024/05/14	09:00 – 12:00	Yes
Henk	-	-	Yes
Jacques	-	-	Yes
Waldo	-	-	Yes

Developing Text Messaging application:

Members	Date	Time	Attended	Role
Henk	2024/05/14	19:30 – 01:00	Yes	Back End Leader
Andre	-	-	Yes	Back End
Jean-Luc	-	-	Yes	Back End
Danika	-	-	Yes	Front End Leader
Jacques	-	-	Yes	Back End/ Front End Leader
Ariel	-	-	Yes	Back End/ Front End
Waldo	-	-	Yes	Back End/ Front End
Anri	-	-	Yes	Back End/ Front End
Christian	-	-	Yes	Back End/ Front End

(Main developers were Jacques, Henk, and Danika. All other members were on standby for additional help if needed. Jacques and Henk did do some research and tests before our first meeting where we would talk about the text application.)

Assigned tasks and responsibilities:

Surnames	Student Numbers	Team Allocation	Roles
Jean-Luc	40779173	Team 2	Member, Back End
Jacques	44214987	Team 1	Member, Back End/ Front End Leader
Christian	40513262	Team 5	Member, Group Leader, Back End/ Front End
Maderi	40977676	Team 4	Member, Back End/ Front End
Danika	41049764	Team 1	Member, Takes Attendance, Documentation Formatting, Back End Leader
Henk	41293584	Team 3	Member, Back End Leader
Waldo	37943278	Team 3	Member, Back End/ Front End
Andre	41093615	Team 2	Member. Back End
Ariël	38566567	Team 4	Member, Back End/ Front End
Anri	37328409	Team 5	Member, Back End/ Front End

Members	Team	Tasks (Use Packet Tracer for designs)
Jacques, Danika	Team 1	Create the network design for 13 Offices. Helping Team 3 with Server Room was optional (if Team 3 needed help). Helping Team 3 with combining packet tracer files was optional (if Team 3 needed help).
Andre, Jean-Luc	Team 2	Create the network design for Reception/ Waiting Area and Open Floor Space. Helping Team 3 with combining packet tracer files was optional (if Team 3 needed help)
Henk, Waldo	Team 3	Create the network design for Server Room/ Machine Room. Compile the Packet Tracer files from the rooms and ensure it works. Describe/ documenting network topology after discussing with whole team.
Ariel, Maderi	Team 4	Create the network design for Kitchen and Meeting Room. Helping Team 2 with Open Floor Space was optional (if Team 2 needed help). Helping Team 3 with combining packet tracer files was optional (if Team 3 needed help).
Anri, Christian	Team 5	Create the network design for Technicians' Office. Helping Team 3 with Server Room was optional (if Team 3 needed help). Helping Team 3 with combining packet tracer files was optional (if Team 3 needed help).

Role	Responsibilities
Member	Help where needed. Communicate concerns, ideas, and answers.
Group Leader	Ensures group stays on track. Schedules meetings and allocates tasks when needed. Also ensures the tasks completed, adheres to requirements communicated from lecturer/ the higher-ups. Also makes notes at meetings.
Back End Leader	Oversees the back end of the text messaging application in this case. Programs the application and ensures the application is optimized and portable. Communicates with the Back End/ Front End Leader to ensure requirements are met.
Front End Leader	Oversees the front end of the text messaging application in this case. Ensures the flow of the application is smooth and acceptable. Communicates with the Back End/ Front End Leader to ensure requirements are met.
Back End/ Front End Leader	Acts as “middleman” between Back End-and Front End Leaders. Sets out requirements for Front End and Back End, also makes sure requirements are met as set by the business.
Back End/ Front End	Dynamic developers that can be utilized by Front End Leaders or Back End Leaders, communicates with the Back End/ Front End Leader if someone is needed.
Documentation Formatting	Beautifies the documentation and ensures content is readable.
Take Attendance	Writes date down and checks if everyone is present at meetings.

Completed task sheet:

Because the dates stretch from March until May, uploading a single picture with details included is a bit difficult to read. So, sections are uploaded with the final picture representing a general idea of the timeline with the help of charts.

PROJECT: CMPG 315 : Network Project

CMPG 315

Group 04

Project start date: 2024/03/04

Scrolling increment: 1

Legend:

On track

Low risk

Med risk

High risk

Unassigned

March

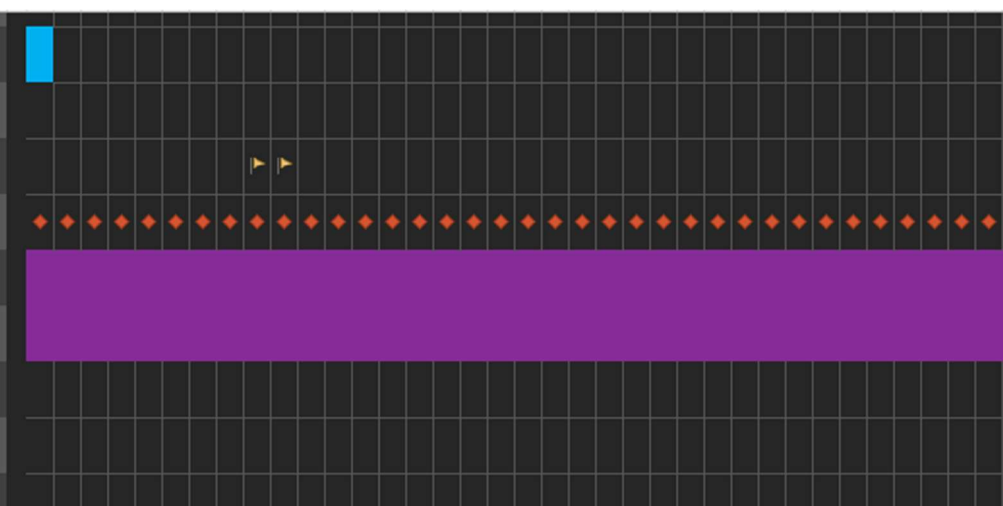
April

5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9
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Milestone description	Category	Assigned to	Progress	Start	Days
Group Task 1: Reflections	Goal		100%	2024/03/04	25
Do course work	Low Risk	All Members	100%	2024/03/04	3
Write reflections for course work and send upload to GitHub.	Milestone	All Members	100%	2024/03/07	1
Timeline for project	Low Risk	Group Leader	100%	2024/03/04	2
Summary of work ethic	Low Risk	All Members	100%	2024/03/04	1



13	GitHub.					
14	Timeline for project	Low Risk	Group Leader	100%	2024/03/04	2
15	Summary of work ethic	Low Risk	All Members	100%	2024/03/04	1
16	Compile draft documentation	Milestone	Group Leader	100%	2024/03/13	2
17	Group Task 2: Continuous Reporting	Goal		100%	2024/03/04	73
18	Notes and Attendance	High Risk	Group Leader	100%	2024/03/04	73
19	Record of assigned tasks etc.	High Risk	Group Leader	100%	2024/03/04	73
20	Group Task 3: Topology Network design	Goal		100%	2024/04/11	26
21	Complete network designs for rooms on Packet Tracer.	Milestone	All Teams	100%	2024/04/11	6
	Send Packet Tracer files to	Low Risk	All Teams	100%	2024/04/17	1



[illegible]

Link to repositories used:

Documents etc:

Link will be added after finalization.

App repository:

Link will be added after finalization.

Group Task 3: Topological Network Design

Report:

Overview of problem:

Possible issues:

Work-From-Aspects:

Describe network topology designed:

Budget and relevant specifications:

Specifications:

Budget:

How users would connect remotely:

- Which remote software should be used:
- Security implications:
- Bring-Your-Own-Device considerations:
- Establishment of a cooperative virtual workspace:

Evaluate the designed network:

- Does it fulfil the requirements?
- What is good about this setup?
- What is problematic about this setup?

- Which part of the network is likely to need the most maintenance? Can this part of network be installed in a way that facilitates maintenance?
- Which parts, if any, would remain if the company moves to a virtual office environment completely? Why?

How the group managed the project without face-to-face meetings.

- Advantages:
 - Experience etc.
- Disadvantages:
 - No experience etc
- Lessons learned from this exercise.
 - Life can be a bastard.

Group Task 4: Text Messaging App Development

Manual for app use should be here...