

**AUTOBIOGRAPHICAL ESSAY**  
**NANCY MWENDE MULWA**  
**REG NUMBER: C027-01-1027/2022**  
**BBIT 4.2**

**INTRODUCTION**

I am Nancy Mwende Mulwa, a Kenyan citizen born on 28th January 2005. I was raised by both my parents in a family that highly values education, discipline, and hard work. My parents are teachers, and their profession played a major role in shaping my character, academic orientation, and attitude toward learning. Growing up in an environment where education was emphasized not only as a means to success but also as a tool for service and personal growth deeply influenced my outlook on life. From an early age, I was encouraged to be responsible, focused, and committed to my studies.

I come from a family of six siblings, and being part of a large family taught me important life skills such as cooperation, patience, sharing, and teamwork. Living with my siblings helped me develop strong interpersonal skills and the ability to coexist with others despite differences in opinions and personalities. These experiences later proved valuable in school, university, and professional environments where teamwork and collaboration are essential. My family background instilled in me strong moral values, respect for authority, and a sense of responsibility toward others.

My early upbringing laid a strong foundation for my personal and academic development. My parents' dedication to their teaching careers inspired me to appreciate the importance of knowledge and continuous learning. They served as role models by demonstrating discipline, commitment to duty, and ethical conduct, qualities that I strive to uphold in my own life. Through their guidance, I learned the importance of setting goals, working hard to achieve them, and remaining resilient in the face of challenges.

As I grew older, I began to develop a keen interest in education and problem-solving. I was naturally curious and eager to understand how things work, especially in areas related to technology and learning. This curiosity gradually evolved into a passion for Information and Communication Technology, which later influenced my choice of course at the university level. My journey through life has been marked by continuous growth, learning, and adaptation to new environments and responsibilities.

This autobiographical essay presents a detailed account of my life journey, beginning with my upbringing and early education, progressing through my secondary and university

education, and highlighting my practical training experiences during internal and external attachments. It also reflects on the skills I have acquired, the challenges I have faced, and the lessons I have learned along the way. Through this narrative, I aim to demonstrate how my background, education, and experiences have shaped my personal values, professional aspirations, and future goals.

## **FAMILY AND BACKGROUND**

I come from a family of six siblings, and I am the last-born in the family. Growing up as part of a large family shaped my personality, discipline, and outlook on life in many significant ways. Being raised alongside five other siblings taught me cooperation, responsibility, patience, and the importance of supporting one another. From an early age, I learned that success was not an individual effort but a collective journey that required unity and sacrifice from every family member.

My family can be described as a medium-income family that relied heavily on hard work, determination, and proper planning to meet our needs. Life was not always easy, especially when it came to education and daily responsibilities, but my parents were deeply committed to ensuring that all their children received quality education. Education was considered an investment rather than a burden, even when financial challenges arose.

One of the defining aspects of my upbringing was the strong culture of hard work within our household. We were actively involved in gardening and farming activities as a family. Working in the garden was not optional; it was part of our daily routine. Through this, I learned the value of labor, self-reliance, and consistency. Gardening not only helped supplement our family's needs but also instilled discipline and a strong work ethic in us from a young age.

There were moments when paying school fees was a major challenge. At times, my parents had to take firewood using our family lorry to schools in order to clear school fees. These experiences deeply shaped my appreciation for education and sacrifice. Seeing my parents go to such lengths to ensure we stayed in school taught me gratitude, resilience, and the importance of not taking opportunities for granted. It made me understand that education was earned through sacrifice and determination, not convenience.

Although my parents are professionals by training, they are also hardworking gardeners and entrepreneurs. They never relied on one source of income. Apart from their professional careers, they engaged in various business ventures to support the family. These included

operating a hardware business, managing a petrol station, and owning rental houses within the village. Through these activities, my parents demonstrated strong entrepreneurial skills, financial discipline, and long-term planning. Their ability to balance professional work with business and farming inspired me to be versatile and resourceful in my own life.

Raising six children and providing them with quality education was not an easy task. My parents enrolled us in academy schools during our early years, later transitioning us to national and extra-county secondary schools, and eventually supporting us through tertiary education. This journey required immense sacrifice, discipline, and commitment. Despite financial and social challenges, my parents never compromised on education, believing strongly that it was the key to a better future.

The outcomes of their dedication are evident in the achievements of my siblings. From our family, we have produced professionals across diverse fields, including an engineer, a lawyer, an accountant, a salonist, and an electrician. Each of these achievements reflects the strong foundation laid by our parents through discipline, hard work, and unwavering support. As the last-born, I grew up inspired by my siblings' achievements and motivated to uphold the standards they had set.

Being the youngest in such an accomplished family has pushed me to work harder and remain focused on my goals. I learned from the experiences of my older siblings, both their successes and challenges, which guided my academic and career decisions. My family background has therefore been a powerful source of motivation, shaping my ambition, resilience, and determination to succeed.

In conclusion, my family background is defined by hard work, sacrifice, entrepreneurship, and a deep commitment to education. The struggles and successes we experienced as a family have molded me into a disciplined, hardworking, and goal-oriented individual. These values continue to guide me as I pursue my academic and professional journey, and they remain the foundation upon which my future aspirations are built.

## **RELIGIOUS LIFE**

From a young age, my parents played a central role in shaping my religious background and spiritual growth. They consistently taught me the importance of faith, moral uprightness, discipline, and respect for others. Together with my siblings, I regularly attended **Sunday school**, where I learned biblical teachings, values of obedience, and the importance of living

a righteous life. These early teachings helped shape my character and influenced how I approach challenges, relationships, and responsibilities both at home and in school.

Although I am not a Catholic, most of my academic journey was spent in **Catholic-sponsored schools**, which exposed me to structured religious practices and strong moral teachings. Being in such an environment helped me appreciate discipline, order, and respect for authority. It also taught me tolerance and openness to different religious beliefs, while still maintaining my own faith. This exposure strengthened my understanding of ethical living and reinforced the importance of faith-based values in everyday life.

As I grew older, my involvement in church activities deepened significantly. I became a **Sunday school teacher**, a role that allowed me to guide younger children in their spiritual development and moral understanding. In addition, I currently serve as the **Vice Chair of the youth group** and an active member of the **church choir**, roles that have enhanced my leadership, communication, and teamwork skills. Through these responsibilities, I learned to serve others selflessly and to lead by example within my religious community.

Up to date, I remain fully committed to my religious life and actively participate in **church camps and conventions**, which provide opportunities for spiritual renewal, learning, and fellowship. These gatherings have helped me grow spiritually, emotionally, and socially by interacting with people from different backgrounds. My faith continues to guide my decisions, strengthen my resilience, and shape my values, enabling me to balance academics, personal growth, and service to the community with purpose and dedication.

## **EARLY LIFE AND PRIMARY EDUCATION**

My early life was closely tied to my educational journey, which began at a young age and played a significant role in shaping my character, discipline, and attitude toward learning. Having been raised by parents who are both teachers, education was emphasized in my home from the very beginning. I was encouraged to attend school early, develop good study habits, and take my academic responsibilities seriously. This environment laid a strong foundation for my formal education and personal development.

I began my nursery school education at **Junior Academy**, where I was first introduced to a structured learning environment. Nursery school helped me develop basic skills such as reading, writing, numeracy, and social interaction. During this period, I learned how to relate with other children, follow instructions, and adapt to routines. These early experiences helped build my confidence and prepared me for the transition to primary school.

As I progressed in my primary education, I transferred to **Kamusiliu Primary School** in Class Three. The transition to a new school environment required adjustment, but it also helped me become more adaptable and resilient. At Kamusiliu Primary School, I studied up to Class Six. During this time, I gained more academic exposure and learned the importance of consistency and discipline in my studies. The school environment contributed to my academic growth and strengthened my ability to cope with change.

In Class Six, I later joined **Bigstar Academy**, where I continued with my primary education until I sat for my Kenya Certificate of Primary Education (KCPE). Although I was registered at Bigstar Academy, I sat for my KCPE examinations at **Kalwa Primary School**. The KCPE period was a challenging time for me, as it marked my first major national examination. After receiving my results, I scored **259 marks**, which, according to my personal expectations, I considered a failure. This outcome was disappointing to me because I believed I could perform better.

Despite the disappointment, this experience became a turning point in my life. Instead of giving up, I used the results as motivation to improve myself academically. In **2017**, I joined **St. Patrick's Primary School, Kyuso**, where I prepared to sit for my KCPE examinations once again. This period required determination, discipline, and renewed focus. I worked hard, sought guidance from teachers, and committed myself fully to my studies.

My efforts paid off when I re-sat the KCPE examinations and scored **340 marks**, a significant improvement from my previous performance. This achievement restored my confidence and reinforced my belief in hard work, perseverance, and self-belief. The experience taught me an important life lesson: failure is not the end, but an opportunity to learn, grow, and strive for better results. My primary education journey, though marked by challenges and transitions, played a crucial role in shaping my resilience, determination, and academic mindset.

During my primary school years, my father played a very active role in my academic development. Being a headteacher by profession, he placed great importance on school performance and academic discipline. He constantly monitored my progress and ensured that I remained focused on my studies. My father often bought examination papers for us and personally marked them to assess our understanding and academic weaknesses. This practice was not limited to me alone but extended to all my siblings as well.

Through these regular assessments, my father instilled in us a strong culture of hard work, consistency, and accountability. He believed that continuous evaluation was key to academic

improvement, and he always encouraged us to do better regardless of our previous performance. His involvement helped me develop discipline, time management skills, and a sense of responsibility toward my education. It also taught me the importance of preparation and self-evaluation, values that have remained relevant throughout my academic journey.

The fact that my father was equally concerned about the academic performance of all his children created a healthy sense of competition and motivation within our family. This environment pushed me to strive for excellence and not settle for average results. His commitment to our education had a lasting impact on my attitude toward learning and played a significant role in shaping my academic resilience and determination.

## **SECONDARY SCHOOL LIFE**

My secondary school education marked a significant stage in my academic, personal, and social development. In **2018**, I joined **Thitani Girls' Secondary School**, where I studied until **March 2022**. Although I was expected to complete my secondary education in **November 2021**, my schooling was extended due to the outbreak of the **COVID-19 pandemic**, which disrupted the academic calendar nationwide. Despite the challenges caused by the pandemic, I remained focused and committed to completing my studies successfully.

Life at Thitani Girls' Secondary School was both demanding and transformative. The school environment required discipline, responsibility, and self-motivation. I adapted to the routine of secondary school and learned how to manage academic pressure, deadlines, and examinations. Over time, I developed confidence in my academic abilities, particularly in Mathematics, a subject that became one of my strengths.

From **Form Two to Form Four**, I served as the **Mathematics Champion** in my school. This role involved assisting fellow students in understanding mathematical concepts, encouraging academic excellence, and representing the school in academic-related activities. Serving as a Mathematics Champion strengthened my leadership skills, communication abilities, and confidence. It also reinforced my interest in analytical thinking and problem-solving, skills that later became essential in my university studies in Information Technology.

In addition to academics, I actively participated in **co-curricular activities**, particularly in sports. I was a **basketball player** and represented my school in competitions up to the **regional level**. Participation in basketball helped me develop teamwork, discipline, time management, and resilience. Balancing academics with sports was challenging, but it taught

me how to manage my time effectively and remain committed to both my studies and extracurricular responsibilities.

My secondary school life was also strongly influenced by my family, especially my father. He was very strict regarding academic discipline and performance. During school holidays, he organized **tuition programs** to ensure that we remained academically engaged. Our daily routine during holidays was highly structured. We would attend tuition classes in **Sahmaba** from morning until around **1:00 p.m.**, after which the evenings were strictly reserved for personal study. There was little time for idleness, as discipline and productivity were highly emphasized in our home.

This strict but supportive environment helped shape my work ethic and academic seriousness. Although the routine was demanding, it instilled in me a strong sense of discipline, consistency, and determination. I learned that success requires sacrifice, focus, and continuous effort. These lessons became deeply ingrained in me and later proved valuable during my university education and professional training experiences.

Overall, my secondary school years at Thitani Girls' Secondary School were formative and impactful. The combination of academic responsibilities, leadership roles, sports participation, and strict parental guidance played a crucial role in shaping my character. This period strengthened my resilience, leadership abilities, and commitment to excellence, preparing me for the challenges of higher education and future professional life.

## **TRANSITION PERIOD**

After completing my secondary school education in March 2022, I was presented with a unique and valuable opportunity to contribute to my community by **teaching at Kamusiliu Mixed Day Secondary School**, a school located in my village. I was assigned to teach **Mathematics and Biology**, two subjects that require both analytical thinking and practical understanding. Taking on this role immediately after finishing secondary school was both a challenge and an exciting responsibility, as it allowed me to gain firsthand experience in lesson planning, classroom management, and the delivery of educational content to young learners. This teaching period lasted for **two school terms**, and it served as a critical bridge between my life as a student and my upcoming university studies.

During this teaching experience, I was responsible for **planning and developing comprehensive lesson schemes of work** for both subjects. This required me to carefully organize the curriculum into manageable units, ensuring that each topic was thoroughly

covered within the allocated time. I also had to prepare teaching materials, including diagrams, exercises, and practical demonstrations, to make lessons engaging and understandable for students with different learning abilities. This process taught me the importance of **organization, preparation, and foresight**, as effective teaching relies heavily on anticipating potential challenges and adapting lessons to meet students' needs. Each day required careful scheduling to balance classroom teaching, marking exercises, and preparing the following day's lessons, which significantly improved my **time management skills**.

One of the most important lessons I learned during this period was the value of **patience and adaptability**. As a young teacher, I had to understand that students learn at different paces and that not every student grasps concepts immediately. Explaining complex mathematical formulas or biological processes required me to think creatively and find alternative ways of presenting the content. Sometimes, I had to repeat explanations, use practical examples, or relate concepts to everyday life to ensure that every student could understand. This experience strengthened my **communication skills** and taught me the importance of empathy, as I had to listen to students' concerns, identify their difficulties, and provide guidance in a supportive and constructive manner.

My father played a significant role in shaping my mindset during this period. Understanding the value of productive engagement, he encouraged me not to stay idle at home after completing secondary school. He believed that every moment should be spent developing skills, gaining experience, or contributing to society. By taking up this teaching role, I was able to honor his advice while also making a positive impact in my community. Being entrusted with the education of younger students instilled in me a deep sense of **responsibility, accountability, and professionalism**, as their learning outcomes depended, in part, on my dedication and effort.

In addition to teaching, I also had to manage administrative responsibilities, such as keeping student attendance records, grading assignments, and preparing feedback reports for the school administration. These tasks provided me with insights into the broader workings of a school environment and the importance of organization, diligence, and attention to detail. I also developed **leadership and problem-solving skills**, as students often presented unexpected questions or challenges that required me to think critically and respond appropriately. Through these interactions, I learned to be confident in my abilities, maintain authority in the classroom while fostering a supportive learning environment, and develop strategies to keep students motivated and engaged.



Overall, my teaching experience at Kamusiliu Mixed Day Secondary School was not only an educational opportunity for my students but also an immensely transformative experience for me. It allowed me to transition from being a student to a responsible mentor, cultivating skills that would prove invaluable throughout my university education and future career. Through teaching, I learned the importance of preparation, adaptability, communication, leadership, and patience—skills that have continued to guide me in academic projects, attachments, and professional endeavors. This period reinforced my understanding that education is not merely about personal advancement but also about uplifting others, sharing knowledge, and making a meaningful contribution to one's community.

## UNIVERSITY EDUCATION

My university education marked a major milestone in my academic and personal journey. After completing my secondary education, I joined **Dedan Kimathi University of Technology** to pursue a **Bachelor of Science in Business Information Technology**. University life introduced me to a more complex and demanding learning environment that required independence, self-discipline, and a high level of commitment. The transition from secondary school to university was challenging, but it provided me with an opportunity to grow academically, socially, and professionally.

At the university, I was exposed to a wide range of academic and technical subjects that deepened my understanding of both business and information technology. My course covered areas such as programming, networking, databases, systems analysis, and information systems. Through these units, I gained both theoretical knowledge and practical skills that prepared me for real-world applications. One of the most important skills I learned during my university education was **academic writing**, which involved research, critical thinking, proper referencing, and structured presentation of ideas. This skill significantly improved my ability to communicate ideas clearly and professionally.

In addition to formal coursework, I actively participated in various **technology-related activities**, including **hackathons** and other innovation-based events. These activities exposed me to real-world problem-solving, teamwork, and creative thinking. Participating in hackathons allowed me to collaborate with students from different backgrounds, share ideas, and develop solutions within limited timeframes. Through these experiences, I improved my coding skills, analytical thinking, and ability to work under pressure, all of which are essential in the technology field.

Balancing academic work with the demanding nature of university life was not easy, but I managed to maintain consistency and focus. I developed effective time management strategies that enabled me to attend lectures, complete assignments, participate in group work, and prepare for examinations. Despite the challenges, I am proud to note that I **never failed any examination** throughout my university studies. This achievement was a result of discipline, consistency, and a strong commitment to my academic goals.

One of the strategies that contributed to my academic success was my preference for **group study**. I consistently studied in groups, which enhanced my understanding of complex concepts through discussion and peer learning. Group study also improved my communication skills and encouraged knowledge sharing among classmates. Working with others helped me appreciate different perspectives and strengthened my ability to collaborate effectively, a skill that is crucial in both academic and professional environments.

I also maintained a positive and collaborative relationship with **lecturers and graduate assistants**, particularly during practical sessions in laboratories and lecture halls. I was actively involved during lessons, asked questions, and sought clarification whenever necessary. My willingness to engage with instructors enhanced my learning experience and enabled me to gain deeper insights into technical concepts. Working closely with lecturers and graduate assistants further improved my confidence, professionalism, and respect for academic authority.

Overall, my university education has been a period of intense learning, growth, and self-discovery. It has strengthened my technical competence, academic discipline, and collaborative skills. The combination of coursework, technology activities, hackathons, group studies, and close interaction with lecturers has prepared me for practical training, professional responsibilities, and future career challenges in the field of information technology.

## **CHALLENGES FACED**

Throughout my life, I have faced numerous challenges that have tested my resilience, determination, and perseverance. These challenges have been both academic and personal, but each has contributed significantly to my personal growth and shaped the person I am today. Overcoming obstacles has taught me the value of hard work, discipline, and strategic planning in achieving one's goals.

One of the earliest challenges I faced was during my **primary school years**. As the youngest in a family of six siblings, I had to adapt quickly to expectations set not only by my

parents but also by the achievements of my older siblings. My initial attempt at the **KCPE examination** was a difficult experience. Despite attending quality schools such as Bigstar Academy and sitting for the exam at Kalwa Primary School, I scored 259 marks, which I considered a failure. Accepting this outcome was emotionally challenging, as I had high personal expectations. However, rather than allowing disappointment to hinder me, I used this experience as motivation to work harder and improve academically. Repeating my KCPE at St. Patrick's Primary School and scoring 340 marks taught me resilience and reinforced my belief in the importance of perseverance.

Financial challenges were another significant obstacle throughout my childhood and adolescence. Although my parents were hardworking, paying school fees for six children was a constant struggle. On several occasions, my father had to transport firewood using our family lorry to schools in order to offset fees. Witnessing these sacrifices instilled in me a deep sense of gratitude and understanding of the value of education. These financial pressures also taught me discipline, patience, and resourcefulness, as I learned to prioritize academics over material comforts.

Transitioning to secondary school presented a different set of challenges. My schooling at **Thitani Girls' Secondary School** was extended due to the outbreak of the **COVID-19 pandemic**, which disrupted normal learning schedules. The delay in completing my studies required additional focus and perseverance to maintain academic excellence despite the uncertainty. Balancing academics, sports, leadership roles, and personal responsibilities demanded careful time management and self-motivation. At the same time, my father's strict discipline meant that holidays were structured with tuitions and study sessions, leaving little room for rest or leisure. While this rigorous routine was sometimes overwhelming, it instilled in me a sense of discipline and resilience that has continued to guide my academic journey.

University life presented its own challenges. Balancing demanding coursework, practical activities, and participation in hackathons required effective time management and strategic planning. Academic writing, research, and collaborative projects were initially difficult, as they required critical thinking, deep understanding of technical concepts, and professional communication. Working in groups and collaborating with lecturers and graduate assistants sometimes presented coordination challenges, but I learned to navigate these situations diplomatically while maintaining focus on my learning objectives. Despite the intensity, I successfully managed my responsibilities without failing any examinations, a testament to my perseverance and dedication.

Additionally, practical technical activities, such as internal and external attachments, exposed me to real-world challenges. At Jomo Kenyatta International Airport, for instance, working under time pressure to resolve ICT support issues or maintain FIDS screens tested my ability to remain calm, think critically, and work efficiently. Similarly, during internal attachments at Dedan Kimathi University, configuring networks, troubleshooting connectivity issues, and installing software required patience, attention to detail, and hands-on problem-solving skills. These experiences challenged my technical abilities and taught me the importance of practical competence alongside theoretical knowledge.

Personal challenges, such as managing expectations within a large and accomplished family, also shaped my resilience. With siblings who are already established as an engineer, lawyer, accountant, salonist, and electrician, there was constant motivation to perform at a high level academically and professionally. While this sometimes created pressure, it also inspired me to strive for excellence and uphold the family's legacy of hard work and success.

In conclusion, the challenges I have faced—from academic setbacks and financial constraints to strict parental expectations and demanding professional experiences—have been instrumental in shaping my character. They have taught me resilience, perseverance, discipline, and the ability to manage multiple responsibilities. Rather than being obstacles, these challenges have become stepping stones toward personal growth, professional development, and the pursuit of excellence in all areas of life.

## **HOW I OVERCAME CHALLENGES**

Throughout my life, I have faced various challenges that tested my resilience, discipline, and determination. These challenges arose in my academic journey, family life, and personal development. Rather than allowing difficulties to discourage me, I learned to face them with a positive mindset and a strong work ethic. Each obstacle became an opportunity for growth, teaching me valuable lessons that shaped who I am today.

One of the major challenges I faced was during my primary education, particularly after my first KCPE attempt. Scoring 259 marks was disappointing and emotionally difficult, especially considering my high expectations and family standards. However, instead of giving up, I chose to repeat the examination. Through focused effort and discipline, I improved my performance and scored 340 marks, an experience that taught me perseverance, self-belief, and the importance of learning from failure.

Financial constraints also posed a significant challenge while growing up in a family of six children. Paying school fees was not always easy, and my parents made great sacrifices to ensure we received quality education. Witnessing these struggles motivated me to take my studies seriously and appreciate the value of education. These experiences taught me patience, responsibility, and gratitude, shaping my attitude toward both academic and personal life.

During secondary school and university, I faced challenges related to discipline, workload, and time management. The COVID-19 pandemic disrupted my secondary education, while university life introduced demanding coursework, technical activities, and practical attachments. Balancing academics, practical training, and extracurricular activities required consistency and focus. Through proper planning, teamwork, and dedication, I successfully managed these demands without failing any examination.

In conclusion, overcoming challenges has been a defining part of my journey. Each difficulty strengthened my resilience, discipline, and determination to succeed. By remaining focused, embracing hard work, and learning from setbacks, I have been able to turn challenges into stepping stones toward personal growth and future success.

### **INTERNAL ATTACHMENT (DEDAN KIMATHI UNIVERSITY)**

During my university studies, I had the opportunity to undertake an **internal attachment** at Dedan Kimathi University of Technology for a period of **eight weeks**. This attachment was a crucial practical component of my course, allowing me to apply theoretical knowledge in real-world ICT environments and develop essential technical, professional, and interpersonal skills. The attachment was structured in phases, each focusing on a different aspect of information and communication technology.

The **first three weeks** of my attachment were dedicated to **software-related activities**. During this period, I gained hands-on experience in installing, configuring, and updating software applications on end-user machines. I learned to troubleshoot common software issues, resolve logged IT support calls, and ensure that all systems were properly maintained. Part of my tasks included installing Microsoft Outlook for users, updating drivers, and ensuring compatibility of applications with existing operating systems. These activities enhanced my problem-solving abilities and taught me the importance of patience and attention to detail, as even small errors in configuration could disrupt users' workflow.

The **next two weeks** were focused on **hardware-related tasks**. In this phase, I worked with physical ICT components such as personal computers, printers, and other peripherals. I learned to assemble, repair, and replace faulty components, including RAM, hard drives, and power supplies. I also assisted in maintaining laboratory computers and other office hardware. The experience provided me with practical knowledge of ICT infrastructure and strengthened my ability to diagnose and resolve hardware-related problems efficiently. Additionally, I was trained on proper handling of equipment, ensuring longevity and optimal performance, which highlighted the importance of preventive maintenance.

The **final three weeks** of my attachment focused on **networking**. During this phase, I learned to configure, troubleshoot, and maintain **local area networks (LANs)** and wireless networks. I gained experience in terminating Ethernet cables, testing network connectivity using appropriate tools, and simulating network setups for practical scenarios. The attachment also introduced me to security management practices, including safeguarding devices against unauthorized access and mitigating potential cyber threats. I participated in activities that involved configuring routers, access points, and ensuring reliable connectivity across different campus locations. This hands-on exposure greatly enhanced my technical competence and confidence in managing complex network systems.

Throughout the eight-week attachment, I was closely supervised by experienced ICT staff who guided me through various tasks and provided mentorship. The experience emphasized the importance of teamwork, professionalism, and communication skills, as I frequently collaborated with colleagues and assisted users with technical challenges. I learned to prioritize tasks, manage time effectively, and remain calm under pressure, all of which are essential qualities in a professional ICT environment.

In conclusion, my internal attachment at Dedan Kimathi University of Technology was a highly educational and enriching experience. It allowed me to apply theoretical knowledge to practical situations across software, hardware, and networking domains. The skills, discipline, and professional habits I developed during this attachment have been invaluable in preparing me for future professional assignments and have significantly contributed to my growth as a competent and confident ICT professional.

**EXTERNAL ATTACHMENT (JOMO KENYATTA INTERNATIONAL AIRPORT  
– JKIA)**

Following my internal attachment at Dedan Kimathi University, I undertook an **external attachment** at **Jomo Kenyatta International Airport (JKIA)** for a period of **three months**. This attachment was one of the most significant practical experiences in my academic journey, exposing me to a professional ICT environment and providing hands-on experience in software support, hardware maintenance, networking, and systems management in a large and complex organization.

At JKIA, I was assigned to the **ICT department**, which comprises several sections, including hardware, software, networking, ICT support, and printer management. During my attachment, I was closely supervised, ensuring that I could perform tasks effectively while learning best practices in a professional setting. I worked in the office, terminals, and airside, gaining comprehensive exposure to airport ICT operations.

The first key area of my responsibilities was **ICT support and troubleshooting**. At the ICT user support desk, I resolved logged IT support calls and assisted in the installation and configuration of **Microsoft Outlook** for end-user machines. I also ensured that all computers and devices were installed with necessary software applications. Part of my role included supporting the **Flight Information Display System (FIDS)**, ensuring that screens displayed accurate flight details, including departure times, destinations, and flight IDs. Additionally, I assisted clients with updating passwords for Outlook and Employee Self Service (ESS) accounts, helping them access pay slips, P9 forms, and other official documents.

A major tool I used during my attachment was **VNC (Virtual Network Computing)**, which allowed me to access client desktops and FIDS screens remotely. Using VNC, I could quickly resolve issues, refresh screens, remove pop-ups, and manage devices in terminals where time-sensitive operations were critical. By obtaining the **IPv4 address** of a device through the command prompt and connecting via VNC, I was able to troubleshoot and solve problems efficiently. This experience enhanced my technical skills and taught me how remote support can save time and improve productivity in a high-pressure environment.

My responsibilities also included **hardware maintenance**. I assisted in replacing faulty FIDS screens, repairing office PCs by upgrading RAM or replacing them entirely, and servicing printers to ensure proper functionality. I also helped maintain **Cisco phones** by replacing Power over Ethernet (PoE) cables when necessary. This hands-on experience strengthened my practical understanding of ICT hardware management and problem-solving.

Another critical aspect of my attachment was **networking**. I participated in troubleshooting network issues, simulating new networks using access points and Ethernet

cables, terminating cables, and testing connections using appropriate tools. In the control room, I learned how to identify faulty cables and maintain optimal conditions to prevent network malfunctions, such as monitoring room temperatures. I gained practical skills in configuring LAN and wireless networks and supporting the network infrastructure across JKIA.

Additionally, I contributed to **asset management** within the ICT department. I recorded and inspected ICT equipment, collected information about terminals, gates, and office devices, and maintained detailed asset management forms. This process ensured that all devices were properly tracked, tagged, and managed, which is essential for accountability and efficient resource utilization. I also participated in training end-users to maximize the use of ICT applications, which improved both their skills and my communication abilities.

The attachment at JKIA not only enhanced my technical competence but also allowed me to develop **professional skills** such as teamwork, integrity, time management, and problem-solving. Working in a large organization with complex systems exposed me to real-world challenges and taught me how to operate under pressure, maintain professionalism, and deliver quality work consistently.

In conclusion, my external attachment at Jomo Kenyatta International Airport was an extremely educational and transformative experience. It strengthened my skills in ICT support, hardware maintenance, networking, and asset management while cultivating professionalism, teamwork, and communication abilities. The knowledge and experience gained during this attachment have been invaluable in preparing me for a successful career in the ICT field and have contributed significantly to my growth as a competent and confident technology professional.

### **SMARTSHIFT PAYROLL PROJECT**

During my studies at Dedan Kimathi University of Technology, I had the opportunity to develop and implement a significant academic project titled “**SmartShift Payroll System.**” This project was designed as part of my coursework in Business Information Technology and aimed to provide a practical solution to a real-world problem in payroll management for organizations operating on shift systems.

The **purpose of the project** was to create a web-based payroll system that could calculate employee salaries based on day and night shifts accurately and efficiently. Many organizations, especially those operating 24-hour services, face challenges in managing



payroll for employees working different shifts. Manual calculations are time-consuming, prone to errors, and often fail to account for overtime, night differentials, or deductions correctly. SmartShift Payroll was therefore developed to automate this process, improve accuracy, save time, and ensure transparency in employee payments.

The system was implemented using **technologies** that included **PHP** for server-side programming, **MySQL** for database management, **HTML, CSS, and JavaScript** for front-end development, and **Apache** (via XAMPP) as the server environment. Git and GitHub were used for version control, allowing efficient tracking of changes and collaboration during the development phase. The system architecture ensured secure data storage, user authentication, and smooth interaction between front-end and back-end components.

SmartShift Payroll incorporated several **key features**:

1. **Employee Management:** The system allows administrators to add, edit, and manage employee details efficiently.
2. **Shift Tracking:** Each employee's day and night shifts are recorded automatically, including overtime hours.
3. **Automatic Payroll Calculation:** The system calculates salaries based on shift hours, overtime, and applicable allowances or deductions, reducing human error.
4. **Reporting:** Payroll reports can be generated for individual employees or departments, providing transparency and ease of auditing.
5. **User-Friendly Interface:** The system is designed to be intuitive, making it easy for non-technical staff to use.

During the development of this project, I gained **numerous technical and professional skills**. I enhanced my **programming skills** in PHP, JavaScript, and database management with MySQL. I learned how to design a functional and interactive user interface while ensuring seamless interaction with the back-end system. The project also strengthened my **problem-solving abilities**, as I encountered and resolved challenges related to calculations, data storage, and system security. Additionally, using version control tools like Git and GitHub improved my **collaboration and project management skills**.

The project was also an opportunity to practice **critical thinking, planning, and testing**. I developed use cases, created system flow diagrams, and conducted thorough testing to ensure that the system operated accurately under different scenarios. This hands-on experience

taught me how to approach software development systematically, from requirement gathering to implementation and testing.

In conclusion, the SmartShift Payroll Project was a significant learning experience that bridged the gap between theoretical knowledge and practical application. It enhanced my technical competencies, strengthened my project management skills, and prepared me for real-world ICT challenges. More importantly, it instilled confidence in my ability to develop practical solutions that can positively impact organizations and improve efficiency in operational processes.

## **SKILLS AND VALUES LEARNT**

Throughout my academic journey, practical attachments, and project work, I have acquired a wide range of skills and values that have contributed to my personal growth, professional competence, and overall development. These skills and values are the result of continuous learning, hands-on experiences, and exposure to real-world challenges, and they have equipped me to face both academic and professional environments confidently.

### **Technical Skills**

1. **Software Installation and Troubleshooting:** Through both internal and external attachments, I gained experience installing, configuring, and updating software applications, including Microsoft Outlook and essential productivity tools. I developed the ability to troubleshoot software issues efficiently and assist end-users effectively.
2. **Hardware Maintenance:** Working with computers, printers, FIDS screens, and Cisco phones exposed me to hardware assembly, repairs, and preventive maintenance. I learned to diagnose faulty components, replace defective parts, and optimize hardware performance.
3. **Networking Skills:** I developed practical skills in configuring LAN and wireless networks, terminating Ethernet cables, testing network connectivity, troubleshooting network issues, and maintaining network security. These skills were reinforced during both university labs and external attachment at JKIA.
4. **Database Management:** Through my SmartShift Payroll Project, I gained experience using MySQL to design databases, manage employee data, and ensure secure storage and retrieval of information.

5. **Programming Skills:** I strengthened my programming competencies in PHP, Java, C++, and Python, which allowed me to develop functional, interactive, and secure applications, bridging theoretical knowledge with real-world applications.

6. **Project Development:** Planning, designing, implementing, and testing the SmartShift Payroll System taught me how to manage projects systematically, from requirement gathering to deployment, using version control and collaborative development tools like Git and GitHub.

### **Professional Values**

1. **Discipline and Time Management:** Balancing academic studies, attachments, projects, and extracurricular activities taught me the importance of managing time efficiently, prioritizing tasks, and adhering to deadlines.

2. **Teamwork and Collaboration:** Studying in groups, collaborating with lecturers, graduate assistants, and colleagues in ICT departments enhanced my ability to work effectively in a team, respect others' perspectives, and achieve shared goals.

3. **Communication Skills:** Interacting with clients, colleagues, and supervisors helped me develop both technical and interpersonal communication skills, including clear reporting of issues, explaining technical concepts, and providing guidance to end-users.

4. **Problem-Solving and Critical Thinking:** Real-world challenges during attachments, project development, and networking exercises strengthened my analytical abilities, enabling me to identify problems, evaluate solutions, and implement effective strategies.

5. **Professionalism and Integrity:** Exposure to professional environments such as JKIA reinforced the importance of integrity, ethical conduct, and maintaining professionalism in all responsibilities, from handling confidential data to respecting organizational policies.

6. **Resilience and Adaptability:** Facing challenges such as academic setbacks, financial constraints, and strict parental expectations taught me to remain focused, adaptable, and resilient, even under pressure or in unfamiliar situations.

7. **Leadership and Initiative:** Leading group study sessions, serving as Mathematics Champion in secondary school, and assisting in ICT projects allowed me to take initiative, guide others, and demonstrate leadership in both academic and practical settings.

8. **Commitment to Continuous Learning:** My experiences highlighted the importance of lifelong learning, staying updated with new technologies, and continuously improving my skills to meet evolving professional demands.

In conclusion, the combination of **technical skills** and **personal values** I have acquired has prepared me to face complex challenges, contribute effectively in professional environments, and pursue a successful career in information technology. These skills and values continue to shape my academic pursuits, project work, and professional aspirations, forming a strong foundation for future growth and achievement.

## CONCLUSION AND PERSONAL REFLECTION

Looking back at my life journey, I can confidently say that I have truly come from far. From my early childhood, through primary and secondary education, to university life, attachments, and personal growth, every stage has shaped the person I am today. My journey has not been smooth or easy, but it has been meaningful and purposeful. Each experience whether success or setback has taught me valuable lessons about resilience, discipline, and self-belief. I have grown not only academically but also emotionally, spiritually, and socially, and these aspects have worked together to mold me into a determined and focused individual.

I am deeply grateful to my **parents**, who have been my greatest pillars of strength throughout this journey. Being teachers themselves, they understood the value of education and sacrificed greatly to ensure that my siblings and I received the best education possible. Their discipline, guidance, and constant encouragement shaped my work ethic and mindset. There are words they spoke to me words of motivation, correction, and hope that I will always carry in my heart. Beyond my parents, I sincerely appreciate my **teachers, mentors, pastors, and role models**, who believed in me, guided me, and challenged me to always strive for excellence. Their influence has left a lasting mark on my life and continues to inspire my daily efforts.

As I reflect on how far I have come, I recognize that my journey has been built on persistence, faith, and the willingness to learn. From moments of failure to moments of achievement, I have learned to stand firm, improve myself, and keep moving forward. The challenges I faced strengthened my character, while the opportunities I received expanded my vision and ambitions. Each step has contributed to my growth and prepared me for greater responsibilities ahead.

Looking into the future, I remain hopeful, focused, and determined to continue progressing in life. My greatest desire is to keep winning not just in terms of career success, but in becoming a source of **happiness and pride to my parents**, and an inspiration to others. I am committed to using the knowledge, skills, and values I have acquired to make a positive impact in society. With faith, hard work, and perseverance, I believe that the future holds even greater opportunities, and I am ready to embrace them with confidence, gratitude, and purpose.

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