



UNIVERSITY OF NAIROBI
COLLEGE OF BIOLOGICAL AND PHYSICAL SCIENCES
SCHOOL OF COMPUTING AND INFORMATICS

INDUSTRIAL ATTACHMENT BRIEFS

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OBJECTIVES

1. Exposure to industrial work environments
2. Active participation in creating practical solutions using knowledge learnt
3. Build professional networks with potential employers

ACTIVITIES UNDERTAKEN

User Support/ Technical Support

At the Authority this constituted a bulk of the services we offered to the internal IRA environment. Examples include repairing printers and other electronic devices, replacing parts of mechanical goods, servicing computers, managing user accounts and such like.

Website Management and Upgrade

The IRA website demanded management in terms of updating information and ensuring the web server was running and properly maintained. During the internship, we were also tasked with upgrading the website completely which included mostly the frontend but also upgrading the backend Content Management System.

This entailed updating the CMS to the most recent version to ensure it received the most recent security updates and fixes and in turn relocating to a different theme all together. Before settling on a few themes for testing, the full design process was followed right from requirement specification to implementation and testing. Analysing and interpreting the data gathered from interview proved to be a difficult process due to the slight subjectivity of the exercise, but having a user-centred approach assisted greatly in curbing this issue to allow implementation.

Internet Services Management

This task mainly involved managing the network infrastructure in place to ensure minimal if not zero disruptions with employee tasks that require internet services. Being in communication with the Internet Service Providers was also a part of this task as it maintained great quality of service for the users.

Data Backup

As part of the ICT policy, it was required that data backup was conducted every day. Data backup with large and sensitive data is important as it ensures data security, integrity and prevents redundancy. Thus in conducting this activity I was able to clearly grasp the complexities of navigating their server and understanding its various functions. I was able to work my way around Microsoft Server software and Microsoft Exchange which was used to manage the mail sever to ensure compliance with the policy. Despite having previously understood the importance of data backup, the practicality of the exercise allowed me to further appreciate the task and put it in the context of the organization, which is an imperative preventative maintenance task.

Software Development

A task was assigned to develop a web application for the Authority's internal use. The solution was to assist managers of various divisions monitor how employees read the Authority's policies to ensure all employees read policies, monitor policy reading patterns, and ensure employees give confirmation that they have understood the document

By following the stages of software development from identification of need to deployment using the agile methodology ensured that the system produced was of good quality and that it addressed the needs of all users.

LESSONS WORTH SHARING

- ❖ While User Support may appear quite simple at the beginning, it is important to know that it demands patience, great communication skills, team work and the ability to exert oneself in finding a solution. During user support I found that in most cases that when a problem is reported by a user it is important to explain in lay terms what the problem is and the method that will be used to curb it. This service therefore presents a role to educate users on the issues that affect them, in the long run this leads to developing more proactive users.
- ❖ During the attachment, the process of choosing and designing data collection tools for information gathering proved to be challenging as the team could not come to a consensus; from this process I learnt that in order to understand the task, identify any existing solution, let alone decide on the methods that can be used to develop a solution, it is important to study it in context, this will enable a team to dig even deeper and better decide which tools will drive the project to success.
- ❖ The lesson that stood out during the software development task was how to adjust the sprint period (as used in agile development) to suit a particular project and a development team. For instance, with a small team consisting of the Managers as users, my two colleagues as advisors and myself as the software developer a shorter sprint, approximately 4 days, would be the best. This is

because I found that with every sprint meeting with the stakeholders, facets of the product would change and some modules would need to be restructured. Long sprints in this case would mean working on modules that would later be changed resulting in a waste of valuable coding time.

- ❖ The stages of software development as well as suitable methodologies on the same should be employed to ensure the requirements specified are met and that the problem stated is approached from the most efficient and effective angle.
- ❖ When considering a particular job or internship, one should be sure to do enough research on the company/ institution in its present environment. For instance, a company known even internationally to be a technical company may be based in Kenya to focus on sales and marketing rather than software/ hardware development therefore one might end up disappointed if proper research is not done. Another example would be: while there might exist an IT department in a company it may be either one of the main departments or a supporting department. Depending on how technical one's skills are, one situation may be overwhelming while another may not necessarily utilize and grow a person's skills.
- ❖ Great soft skills, professionalism, good work ethic, discipline and a culture of constant self-improvement is just as important as how good a person's technical skills are. This is because the modern work environment will challenge a person to learn new things, interact with new people, innovate and approach day to day work from an angle that may or may not necessarily be taught in the lecture room.