

Student Employment Portal

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1 Context

The Counselling and Careers Development Unit (CCDU) at Wits requires an improved Student Employment Portal (SEP). While this service is available to the University to fill short-term and part-time vacancies, this service is to be availed to external companies so that they may more efficiently recruit students without assistance from CCDU personnel. This proposal is prepared based on consultations with Wits ICT and the following documents provided.

- WITS INFORMATION AND COMMUNICATION TECHNOLOGY, Business Requirement Documents – CCDU Student Employment Portal, Final Version, 03 November 2022.
- Student Employment Portal Presentation

As there are numerous features, this project has been broken down into multiple phases. This proposal is only to address those features deemed to be essential for phase 1.

1.1 Objectives

The primary features in scope for phase 1 are as follows:-

- Incorporate CCDU links and material from their current website <https://www.wits.ac.za/ccdu/career--job-search-resources/career--job-search-resources/>
- CCDU social media links can be added to the site
- Allow external employers to register, create posts and view applicants
- Allow CCDU administrators to approve employer registrations and each post.
- Students are to be able to create a digital profile (CV). This will enable the students to apply for multiple posts using the same digital profile. The actual generation of a pdf document of the CV is out of scope and will be tackled in the subsequent phase.
- Students to be able to view and search adverts
- When a student applies, the digital profile is automatically linked. The student is required to upload other requested documentation such as transcripts, certificates, etc.
- Students to track their job application history
- Enable notifications through emails
- Provide summary reports such as stats on number of visits, completed applications, vacancies per time and a few other simple metrics.

Implementing the above features means that this application can go into production and enable CCDU to start generating revenue while new features are being developed.

1.2 Future features

Meeting the objectives above is just the start for this application. Future features in subsequent phases of the project (ie out of scope for the current implementation).

- Create a formatted CV in pdf format using their digital profile – document formatting is tricky and time-consuming.

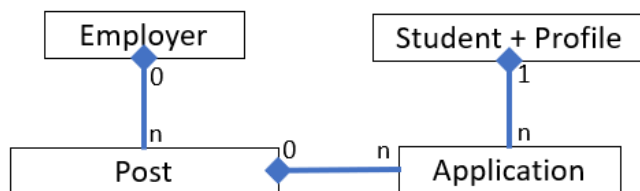
- Allowing an employer to withdraw a post due to unforeseen circumstances such as being unable to secure funding. All students will have to be notified and the implications of such an action must be understood before attempting this feature.
- Upload qualifications alongside the students digital profile so that they do not need to be uploaded for each application. Each application might only require the cover letter to be uploaded. This will reduce the number of documents uploaded.
- Allowing bursary applications to be submitted online. This feature will most likely reuse the standard job posting functionality.
- Events and RSVP management
- Advertising
- Creating a single merged pdf of all uploaded documents so that the Employer may download one document.
- Improve security by introducing One Time Pin (OTP) when logging in through emails.

The actual features for each phase will be established and prioritised in consultation with Wits ICT and CCDU.

2 Solution

2.1 Entity relationship

The entity relationship identified is shown below.



- An **Employer** may have 0 to n number of Posts
- A **Student** will have their details and profile
- A **Post** can have 0 or more **Applications** submitted by the Students
- Students can have 0 or more Applications for different Posts

2.2 Roles

The application roles are as follows

- **Employer** – may be an external recruiter or Wits staff member seeking students for employment. Employers will create posts and be able to review applications.
- **Student** – will create their digital profile and use that to apply for posts.
- **Approve** – is typically designated CCDU personnel that will approve Employer registrations so that they may log in to the system. They will also approve each post before it goes live on the site (visible to the students).
- **Admin** – a person who is able to remove users as and when required. This is a standard function for any app and is not described in this document.

2.3 Design considerations

The following considerations were included when designing this solution:

- Minimise data entry as well as minimise re-entering the same data.
- Ensure appropriate security measures in terms of POPIA as it will now contain sensitive information for students. **This is not a concern for this exercise but be mindful.**
- Track all post applications to create full history for data analysis purposes.

2.3.1 Performance testing

This application is expected to be used by a larger number of students and there is a possibility that the server may experience more traffic, causing performance (response time) to degrade. The application being designed is not handling any complex logic. The only potential bottleneck is the document upload as that consumes bandwidth. The proposed approach is to launch the system slowly and focus advertising to targeted groups of students to minimise traffic. Alternatively, additional servers can be used with a load balancer to increase capacity to handle more traffic.

2.3.2 Potential security vulnerability

Users are required to log in before they are permitted to upload a document. Any malicious attempt can be traced to a user. Some users may upload malicious files that may inadvertently consume all resources resulting in the services going down. It may be worthwhile exploring using a third-party service to verify a document prior to upload. Such assessments and decisions will be made based on where the solution will be hosted.

2.4 Glossary

AD – Active Directory is a database that contains all the details of the Wits users so that it can authenticate and authorise users to log into different services.

API – Application Programming Interface enables one to securely query Wits ICT systems such as AD for authentication and send email notifications to users.

CCDU – Counselling and Careers Development Unit

POPIA – Protection of Personal Information Act

SEP – Student Employment Portal is the system that is being proposed.

2.5 Assumptions

- All staff and students have a wits email account which will be used to communicate with them.
- Access to the hierarchy of faculties and departments (copy) to populate cascading dropdown boxes through APIs availed by Wits ICT. **For this exercise, we will not have access to this information.**
- A post may be filled with one or more candidates
- Students may apply for as many posts as they desire – in future, we can impose embargoes or apply other limits based on data gathered through actual usage and lessons learnt.
- Students are classified by year of study and faculty which is required for filtering purposes.

2.6 Uncertainty

- The system will probably be deployed to Cloud. For this exercise, we will definitely host on a local machine. If possible, we can explore publishing it on Azure or AWS.
- The system will need to manage the external user log in and allow internal staff to be authenticated via AD. For this exercise, we will run this as a completely stand alone app.

2.7 Dependencies

CCDU to provide legal wording for use on the site specifically for

- Terms and Conditions of use of this site (app) – Text will be provided
- POPIA: the intended usage of the data gathered – Text will be provided

We would also require Wits ICT to grant access to APIs for

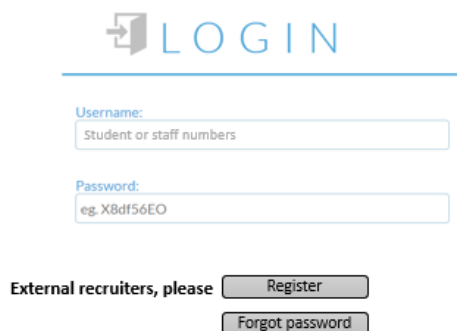
- login validation through AD,
- hierarchy of departments' information and
- email server gateway for outgoing messaging by emails

2.8 Login

Login validation will be done through Active Directory (AD). Logins for external users (employers) will be managed on the system.

Students and staff can login with your staff/student numbers.

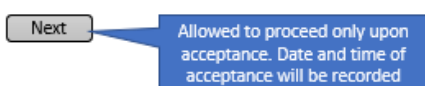
External recruiters, please register first to obtain a login



The login form features a header with a blue icon of a person and the word "LOGIN" in blue. Below this is a horizontal line. The form contains two input fields: "Username:" with a placeholder "Student or staff numbers" and "Password:" with a placeholder "eg. X8df56EO". At the bottom, there is a label "External recruiters, please" followed by two buttons: "Register" and "Forgot password".

Upon first login, users will be asked to accept the terms and conditions before proceeding.

☐ I have read and accept the [Terms and Conditions](#) for the use of this service



A "Next" button is shown next to a blue callout box. The callout box contains the text: "Allowed to proceed only upon acceptance. Date and time of acceptance will be recorded".

2.9 Employer Journey

2.9.1 Registration

Wits members of staff do NOT need to register. External employers need to do so with the following information.


| | |
|-----------------------------|--|
| Title | <input type="text" value="Mr"/> |
| First name | <input type="text" value="Elliot"/> |
| Surname | <input type="text" value="Bob"/> |
| Email and username | <input type="text" value="elliott.bob@eskom.co.za"/> |
| Tel | <input type="text" value="011 717 7200"/> |
| Cel | <input type="text" value="089 952 6565"/> |
| Job Title | <input type="text" value="Manager"/> |
| Company registration number | <input type="text" value="92350677633"/> |
| Registered name of business | <input type="text" value="Eskom Holding SOC Ltd"/> |
| Trading name (displayed) | <input type="text" value="Eskom"/> |
| Business Type | <input type="text"/> |
| Registered address | <input type="text"/> |


Type password

Retype password

☐ I confirm that the information provided above is true to the best of my knowledge

Please wait for a confirmation email from us that your registration has been approved. This normally takes up to 3 working days.


reCAPTCHA

☒ I'm not a robot 

Auto-populate name from registration number and make this read only

Enforce strong password

The company registration number will be used to prevent duplicate entries and different spellings for the same company. This will simplify reporting by Employers. The remaining information may be used for verifying the Employer so that they may be invoiced for use of this service.

The email address will also be used to ensure that there are no duplicate registrations. In other words, an employer may register only once with that email address. If they forget their login credentials, they will have to reset their password using the *Forgot password* function.

Upon registration and email will be sent to notify the Admin of a pending registration. The assumption above is that it may take a few days for the registration to be verified.

An employer can only log in once the registration is approved.

An employer may also edit the details of the company. Only selected fields may be edited and that will be defined later in conjunction with the client.

2.9.2 Manage Posts

User story: As an employer, I wish to create posts so that I may receive applications.

The following view shows some of the posts created in a tabular form by this fictitious Employer. An Employer will obviously not be able to see posts created by other Employers. The Employer may click on **Review** to see details and access more functionality.

| Job title | Department | FT/PT | Start | End Rate | Status |
|-------------------|------------------------|-------|------------|------------|----------------------------------|
| Library assistant | Library | PT | 04-01-2023 | 31-03-2023 | Pending Review |
| Choir director | Wits School of Arts | PT | 01-02-2023 | 30-04-2023 | Approved Review |
| Lab assistant | Eskom Holdings SOC | FT | 12-06-2023 | 30-06-2023 | Rejected Review |
| Tutor | Facu.. Eng & Built env | PT | 01-03-2023 | 31-07-2023 | Closed Review |
| Tutor | Fac of Law & Comm | PT | 01-02-2023 | 30-10-2023 | Withdrawn Review |

[Create Post](#)
[Back](#)

Click on **Create Post** to see the following choice.

- ~~In the case of a member of staff, they will need to make the following selection~~

Select Faculty ▼

Select Department ▼

- In the case of an external employer, the company will be auto-selected

autos-selected

The remaining information must be filled out.

| | | | |
|---|---|--|----------------------|
| Job title | <input type="text"/> | | |
| Location | <input type="text" value="building, campus, etc or an address"/> | | |
| Description of job | <div><div></div><div>Tr B I U </div></div> | | |
| Key responsibilities | <div><div></div><div>Tr B I U </div></div> | | |
| Fulltime or part-time | <div><div></div><div></div></div> | | |
| Part-time: Number of hours required in a week | Range | <div> <ul style="list-style-type: none"> < 2 2 to 4 4 to 6 6 to 8 8 to 12 >12 </div> | |
| Start date | <input type="text"/> | | |
| End date | <input type="text"/> | | |
| Hourly rate | <input type="text"/> | | |
| Limited to | <input type="checkbox"/> 1 st year <input type="checkbox"/> 2 nd year <input type="checkbox"/> 3 rd year <input type="checkbox"/> Honours <input type="checkbox"/> Graduates <input type="checkbox"/> Masters <input type="checkbox"/> PhD <input type="checkbox"/> Postdoc <input type="checkbox"/> Faculty? <input type="checkbox"/> Department? | | |
| Limited to | <input type="radio"/> South African citizens or <input type="radio"/> Open to everyone | | |
| Minimum Requirements | <input type="text" value="Doing 1<sup>st</sup> year Elec Eng or 1<sup>st</sup> year Bcom. Knowledge of Office 365"/> | | |
| Application instruction | <input type="text" value="Please submit covering letter with a detailed CV. We need you to include full details for 3 referees, copy of ID, proof of resident"/> | | |
| Closing date | <input type="text" value="31-03-2023"/> | | |
| Contact person (for internal use and not visible to students) | <input type="text"/> | email | <input type="text"/> |
| Contact no | <input type="text"/> | | |
| <div> <div>Create Post</div> <div>Back</div> </div> | | | |

Create Post will save and take the Employer back to the tabular display of posts and set the *Status* to Pending.

| Job title | Department | FT/PT | Start | End Rate | Status | |
|-------------------|------------------------|-------|------------|------------|-----------|------------------------|
| Library assistant | Library | PT | 04-01-2023 | 31-03-2023 | Pending | Review |
| Choir director | Wits School of Arts | PT | 01-02-2023 | 30-04-2023 | Approved | Review |
| Lab assistant | Eskom Holdings SOC | FT | 12-06-2023 | 30-06-2023 | Rejected | Review |
| Tutor | Facu.. Eng & Built env | PT | 01-03-2023 | 31-07-2023 | Closed | Review |
| Tutor | Fac of Law & Comm | PT | 01-02-2023 | 30-10-2023 | Withdrawn | Review |

[Create Post](#)
[Back](#)

The possible Status options are

- Pending – post created and awaiting review by Admin
- Queried – the post was viewed and Admin is seeking more information or requiring clarification
- Rejected – Admin felt that this post was inappropriate for whatever reason.
- Approved – post is live and visible to students.
- Closed – post was closed and is no longer accepting applications. It would no longer be visible to students except within the history of those that applied.
- Withdrawn – a post was withdrawn by the Employer for whatever reason (eg. failing to secure a grant).

2.9.3 Review Post

Start with the list of Posts

| Job title | Department | FT/PT | Start | End Rate | Status | |
|-------------------|------------------------|-------|------------|------------|-----------|------------------------|
| Library assistant | Library | PT | 04-01-2023 | 31-03-2023 | Pending | Review |
| Choir director | Wits School of Arts | PT | 01-02-2023 | 30-04-2023 | Approved | Review |
| Lab assistant | Eskom Holdings SOC | FT | 12-06-2023 | 30-06-2023 | Rejected | Review |
| Tutor | Facu.. Eng & Built env | PT | 01-03-2023 | 31-07-2023 | Closed | Review |
| Tutor | Fac of Law & Comm | PT | 01-02-2023 | 30-10-2023 | Withdrawn | Review |

The user may use the **Review** button and edit information in a post. Any comments made by the review would be visible.

Reviewer's comment The description is too vague. Why is this limited to engineering only?

☐ Internal (within Wits)
 ☐ External (created on behalf of)

Job title
 Location
 Description of job
 Key responsibilities
 Fulltime or part-time
 Part-time: Number of hours required in a week

Start date
 End date
 Hourly rate

Limited to
☐ 1st year ☐ 2nd year ☐ 3rd year ☐ Honours
☐ Graduates ☐ Masters ☐ PhD ☐ Postdoc
☐ Faculty? ☐ Department?

Limited to
☐ South African citizens or
☐ Open to everyone

Minimum Requirements

Application instruction

Closing date

Contact person (for internal use email
 and not visible to students) contact number

The **Close** button (after a pop-up confirmation) will result in this post being no longer available to students other than those that have already applied.

The **Withdraw** button (after a pop-up confirmation) will result in this post being no longer available to students other than those that have already applied. Those students who have applied will see this status next to the post. This status is a future feature as it may have other implications that would need to be identified and addressed.

2.9.4 View Applicants

As an employer, I want to review all the applicants responding to my post.

This will open up a tabular view listing all the applicants.

| Name | Surname | Department | Course | Level | Gender | Status | |
|----------|----------|----------------------------|----------------------|--------|--------|-----------|-------------------------|
| John | Favreau | Fac... of Eng & Built Env. | Chemical Engineering | Year 2 | Male | Pending | Details |
| Bob | Marley | Wits School of Arts | Gaming | Year 3 | Female | Pending | Details |
| Jean | du Preez | Health Sciences | BHSc – Biokinetics | Year 1 | Female | Pending | Details |
| Simphiwe | Dladla | Science | Physics | Hons | Male | Withdrawn | Details |

Click on **Details** to view the following information on the student with their complete digital profile

Job title: Library assistant
Job Description: Temp for the librarian after hours

Student no 0012345/A
Department Faculty of Engineering and Built Environment
Course Chemical Engineering
Level Year 2

Profile

Name: Abe
Surname: Villiers
Email address abe.villiers@wits.ac.za
Tel number 0611234567

Gender Male
Nationality South Africa

..... Full digital profile

[Document 1](#) Cover letter

[Document 2](#) Transcript

[Document 3](#) Certificate

Outcome status Interview/On Hold/Rejected/Appointed ▼

[Back](#)

[Save](#)

Clicking on the document hyperlink will open them one at a time in a pop-up window.

On this screen, the Employer must choose the outcome status which is explained as follows:

- Interview – the candidate is to be interviewed
- On hold – the candidate has been reviewed but no decision has been made.
- Rejected – the candidate must be notified and will not be considered further.
- Appointed – candidate will be notified accordingly

This feature is dependent on the Employers using this functionality. The Employer must select an outcome and **Save**. They will be returned to the previous screen as follows.

| Student no | Department | Course | Level | Gender | Status | |
|------------|----------------------------|----------------------|--------|--------|--------------|-------------------------|
| 0012345/A | Fac... of Eng & Built Env. | Chemical Engineering | Year 2 | Male | Pending | Details |
| 0012345/A | Wits School of Arts | Gaming | Year 3 | Female | Unsuccessful | Details |
| 0012345/A | Health Sciences | BHSc – Biokinetics | Year 1 | Female | Successful | Details |
| 0102502/B | Science | Physics | Hons | Male | Withdrawn | Details |

The Status is explained as follows and will be displayed the same for the respective student.

- Pending – application has not been reviewed and/or the outcome is undecided
- Unsuccessful – application is rejected
- Successful – applicant is appointed
- Interview – as above
- On hold – as above (perhaps a better term should be used).
- Withdrawn – the applicant has voluntarily withdrawn their application. The details of this applicant can no longer be viewed by the Employer.

2.9.5 Export Excel

An employer may Export all the applicants (excluding those that have withdrawn) to a flat and wide Excel spreadsheet containing the complete digital profile. The file may be saved locally for analysis.

2.10 Approver Journey

User story: As an Approver, I want to review all external employer registrations and decide who to approve.

2.10.1 Review external employers

Upon login, the Approver will see the following options.

Review External Employers

Review Posts

View stats

Clicking on the Review External Employers will open up a list of employers in a tabular format as shown below. The list may be filtered including by *Status*.

| Name | Legal Name | Trading name | Registration number | Status | |
|--------------|----------------------------|--------------|---------------------|----------|------------------------|
| Bob Elliot | Eskom Holding SOC Ltd | Eskom | 200201552730 | Pending | Review |
| James Webb | Wits Incubator (Pty) Ltd | Tshimologong | 201702456811 | Pending | Review |
| Matt Damon | University of Johannesburg | UJ | 201501505046 | Approved | Review |
| Winona Ryder | Sasol | Sasol | 102142501225 | Rejected | Review |

The Status field will indicate all Pending registrations. Click on **Review** and the following window will open with details.

First name

Elliot

Surname

Bob

Email

elliott.bob@eskom.co.za

Tel

011 717 7200

Cel

089 952 6565

Job Title

Manager

Company registration number

94256333

Registered name of business

Eskom Holding SOC Ltd

Trading name (displayed)

Eskom

Business Type

SOC

Registered address

Sunninghill

Approver's notes

This is the fourth person from the same company that is registering

Approve

Trigger an email confirmation to external recruiter.

Reject

If the recruiter cannot be verified then reject.

Back

Edit the company name to ensure consistent spelling for reporting purposes

Optional for recording reasons for decisions

The Approver may call the Employer using the details provided to verify the details and decide whether the Employer is approved or rejected.

If an employer is rejected, then the Employer will have to provide the necessary documentation to change the status to Approved.

Upon completion, the Approver is returned to the following screen with the Status updated. The Status is explained as follows.

- Pending – application has not been reviewed and/or the outcome is undecided
- Approved – the Employer may login and use this service
- Rejected – the Employer cannot login but the details will remain in the system.

2.10.2 Review Posts

User Story: As Approver, the posts need to be reviewed to decide whether it complies with CCDU standards for publication (ie made visible to students).

On the main menu, using the **Review Posts** button will open the following window. The list may be filtered, including the *Status* field.

| Job title | Department | FT/PT | Start | End Rate | Created by | Status | |
|-------------------|---------------------|-------|------------|------------|------------|-----------|------------------------|
| Library assistant | Library | PT | 04-01-2023 | 31-03-2023 | employer | Pending | Review |
| Choir director | Wits School of Arts | PT | 01-02-2023 | 30-04-2023 | employer | Closed | Review |
| Lab assistant | Eskom Holdings SOC | FT | 12-06-2023 | 30-06-2023 | employer | Pending | Review |
| Lab assistant | Physics | PT | 01-01-2023 | 31-12-2023 | employer | Withdrawn | Review |

Click on **Review** for a post and the details will be displayed.

Reviewer's comment Provide reason if the vacancy is queried or rejected. The description is too vague. Why is this limited to engineering only?

☐ Internal (within Wits)
 ☐ External (created on behalf of)

Select Faculty ▼

 Select Department ▼

 Select Company ▼

Job title

 Location

 Description of job

 Key responsibilities

 Fulltime or part-time

 Part-time: Number of hours required in a week

 Start date

 End date

 Hourly rate

 Limited to

☐ 1st year ☐ 2nd year ☐ 3rd year ☐ Honours

☐ Graduates ☐ Masters ☐ PhD ☐ Postdoc

☐ Faculty? ☐ Department?

 Limited to

☐ South African citizens or

☐ Open to everyone

 Minimum Requirements Doing 1st year Elec Eng or 1st year Bcom. Knowledge of Office 365

 Application instruction Please submit covering letter with a detailed CV. We need you to include full details for 3 referees, copy of ID, proof of resident

 Closing date 31-03-2023

 Contact person (for internal use email

 and not visible to students) contact number

Outcome Approved/Rejected/Queried ▼


Review the details and set the *Outcome* to Approved. Upon **Save changes**, the advert will become public. However, if the information is unsatisfactory, set the Status to *Queried* or *Rejected* and write comments for the benefit of the Employer. In both cases, the comments will be visible to the Employer.


The Approver will be returned to the previous list of posts and with the Status updated.

2.10.3 View stats

User Story: As Approver, I want to view some basic stats on the effectiveness of this service

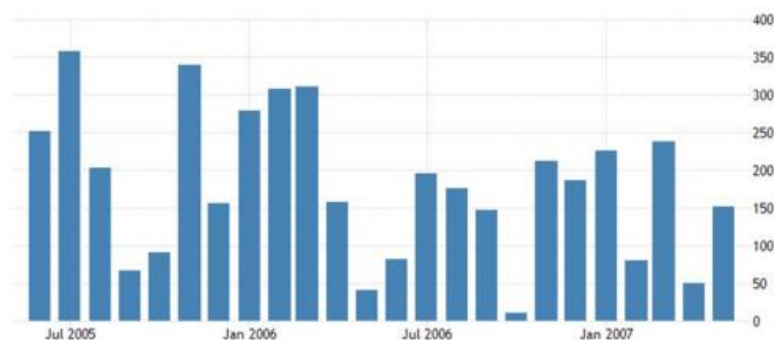
Using the **View stats** button will display some basic charts. Specify the data range to confine the charts.

Start date 

End date 

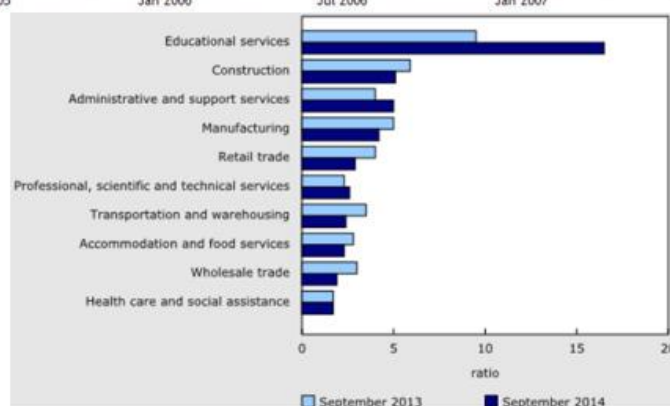
No of Posts

Internal vs External



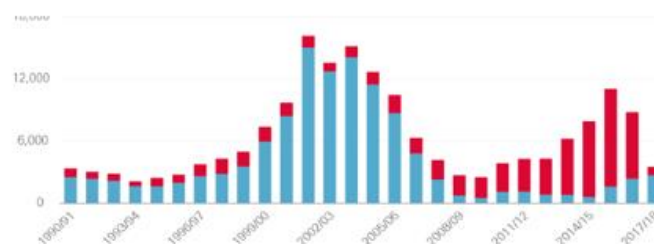
No of Applications

Internal vs External



No of Appointment

Internal vs External

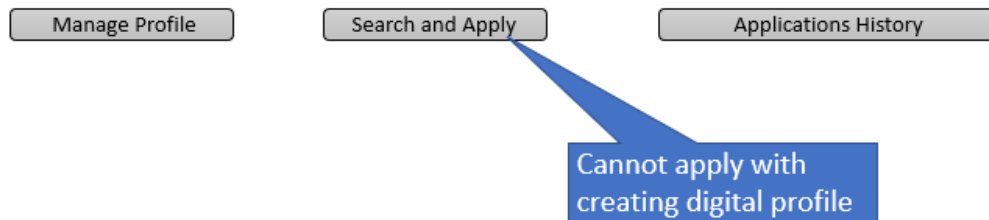


2.11 Student Journey

2.11.1 Home page

User story: As a student, give me access to resources to help me prepare for an interview.

The following options and links from CCDU will be displayed on the home page.



Links

CCDU CV & Cover Letter Documents:

- [CV & Cover Letter Presentation](#) - A pdf of the PowerPoint presentation as presented in the Journey to Employability Programme [JEm].
- [Kabelo Sekele CV](#) - A Word template providing a guide to the essential elements of a CV.
- [Kabelo Sekele CV \(pdf\)](#) - A pdf template providing a guide to the essential elements of a CV.
- [The Job Interview \[11Mar2020\]](#) - A pdf of the Powerpoint presentation as presented in the Journey to Employability Programme [JEm]

Contact Us

Terms and Conditions of Use

POPIA and PAIA

Connect with us



Social media links will also be inserted in the footer.

2.11.2 Student Registration

Suggest a suitable user registration page. It does not need to be overly complicated as students need not be verified.

2.11.3 Manage Profile

User story: As a student, I need to create a digital profile (CV) so that I can use it for job applications

The **Manage Profile** button will open the following window. The fields in this form were created based on the sample CV from the CCDU website for a fictitious student Kabeleo Sekele. The student is expected to start with the following information.

| Personal details | |
|---------------------------|--|
| Full name: | KABELEO SEKELE |
| Address: | 49 Heron Street, Lenasia, 1820 |
| Tel: (optional) | 011 852 3281 |
| Cel: | 076 492 3451 |
| Email? | karabo.sekele@gmail.com |
| ID/Passport No (optional) | 0306205003084 |
| Drivers License | Code EB ▼ |
| Career Objective | To gain a challenging entry-level |
| Gender | Male? |
| Race | Black? |
| Nationality | South Africa |
| Current year of study | <input type="checkbox"/> 1 st year <input type="checkbox"/> 2 nd year <input type="checkbox"/> 3 rd year <input type="checkbox"/> Honours <input type="checkbox"/> Graduate <input type="checkbox"/> Masters <input type="checkbox"/> PhD <input type="checkbox"/> Postdoc |
| Faculty | Department |

It is unclear at this stage whether the text in red is required but it is stated herein so that CCDU may provide input.

Education

When it comes to *Education*, the details are displayed in summary with an **Add** button.

Education

Add

Click on the **Add** button to fill out a qualification as per an example below.

| | |
|---------------|--|
| Institution | UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG |
| Date | 2019 - |
| Qualification | Honours Bachelor of Arts (Sociology) |
| Subjects | Social Transitions The Making of the South African Social Order Advanced Social Research Global Institutions and Economic Restructuring The Demography of South Africa |
| Majors | |
| Sub | |
| Research | A demographic study of transitions in the mining sector. A case study of miners at the Bathopele Platinum Mine in Rustenburg. |
| Save | |

Leave non-applicable fields blank and **Save** upon completion

An example of adding another education is shown below.

| | |
|---------------|---|
| Institution | UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG |
| Date | 2016 - 2018 |
| Qualification | Bachelor of Arts |
| Subjects | |
| Majors | Sociology and Media Studies |
| Sub-majors | Politics and English Literature |
| Research | |

Add another example of education is shown below.

| | |
|---------------|--|
| Institution | JEPPE HIGH SCHOOL FOR BOYS, JOHANNESBURG |
| Date | 2011 - 2015 |
| Qualification | Highest Grade Passed: Grade 12 |
| Subjects | English (Home Language), Afrikaans (First Additional Language), Mathematics, Life Sciences, Accounting, Business Studies, Life Orientation. Distinctions achieved in English and Business Studies. |
| Majors | |
| Sub-majors | |
| Research | |

Upon saving the qualifications, the student is returned to the profile page, where they will see all their qualifications in summary form, as shown below.

Education

Add

| | | |
|--------------------------------------|------|--------|
| Honours Bachelor of Arts (Sociology) | Edit | Delete |
| Bachelor of Arts | Edit | Delete |
| Highest Grade Passed: Grade 12 | Edit | Delete |

Each qualification may be **Edited** or **Deleted**.

Employment

Employment

Add

Use the **Add** button and you will be presented with the following screen. Fill out your work experience.

| | |
|-------------------------------------|---|
| Employer Name | UNIVERSITY OF THE WITWATERSRAND, SCHOOL OF SOCIAL SCIENCES |
| Date | 2019 - |
| Job Title | Academic Tutor |
| Tasks and responsibilities | Receiving and accounting for cash received Cash float management Customer liaison General reception duties Public relations |
| <input type="button" value="Save"/> | |

Save will return you to the previous screen. Use the Add button to create another work experience as shown below.

| | |
|----------------------------|---|
| Employer Name | WICHITA SPUR, KENSINGTON |
| Date | Oct 2018 – Jan 2019 |
| Job Title | Waitron and Cashier |
| Tasks and responsibilities | Receiving and accounting for cash received Cash float management Customer liaison General reception duties Public relations |

One more.

| | |
|----------------------------|--|
| Employer Name | Khaya FM |
| Date | Apr 2018 – Jul 2019 |
| Job Title | Part-time administration assistant |
| Tasks and responsibilities | Retrieval of information for research projects Library Information database development Assisting the receptionist during busy periods Filing and other general office duties |

When the student returns to the profile page, they will see a summary of their work experience as follows.

| | |
|------------------------------------|---|
| Employment | |
| <input type="button" value="Add"/> | |
| Academic Tutor | <input type="button" value="Edit"/> <input type="button" value="Delete"/> |
| Waitron and Cashier | <input type="button" value="Edit"/> <input type="button" value="Delete"/> |
| Part-time administration assistant | <input type="button" value="Edit"/> <input type="button" value="Delete"/> |

Each employment may be **Edited** or **Deleted**.

Continue with the digital profile by listing your skills as per the example shown below.

Skills

Desktop design and layout

General office routine skill and experience

Microsoft Office, In-Design, Photoshop, Marketing and Promotions using social media. Strong familiarity with Microsoft Excel.

Tutoring and education support

Interpersonal skills developed through work experience and tutoring

Attaining objectives through teamwork processes

List all your achievements

Achievements

~~Special achievements and Honours:~~

Distinctions in Sociology II (2017) and Media Studies III (2018)

Active participant in WCCO (Wits Citizenship and Community Outreach - Wits University) (2017 -)

Residence House Committee Member and Programme Coordinator, Wits University (2016 & 2018)

Jeppe High School football team captain (2015)

Jeppe High School Debating Team member (2014 - 2015)

List your interests as shown below.

Interests

Sport: Football, Cricket, Tennis and Volleyball. I believe that participation in sport develops strength in the areas of leadership and physical health.

Design: My interest in art and design has developed my ability to think creatively and to present my ideas professionally.

Referees

Referees

Add

Use the **Add** to include referee using the following screen.

| | |
|-------------------------------------|--|
| Name | Prof. J.H. Russel |
| Job title | Senior Lecturer |
| Institution | School of Social Sciences, University of the Witwatersrand |
| Cel | 082 987 8765 |
| Emails | Jonathan.Russel@wits.ac.za |
| <input type="button" value="Save"/> | |

Add another referee as shown below.

| | |
|-------------|--------------------------|
| Name | Mr B. Satsha |
| Job title | Manager |
| Institution | Wichita Spur, Kensington |
| Cel | 089 659 7854 |
| Emails | Brian.Satsha@gmail.com |

Upon completion, all the referees will be displayed in the summary form below.

| | |
|------------------------------------|---|
| Referees | |
| <input type="button" value="Add"/> | |
| Academic Tutor | <input type="button" value="Edit"/> <input type="button" value="Delete"/> |
| Waitron and Cashier | <input type="button" value="Edit"/> <input type="button" value="Delete"/> |
| Part-time administration assistant | <input type="button" value="Edit"/> <input type="button" value="Delete"/> |

Click **Save Profile** to complete. The student may return any time to update and grow the profile.




2.11.4 Search and Apply

User story: As a student, I want to search posts so that I may apply.

The following view will display only those posts that fit their profile (year, faculty and nationality).

| Job title | Department | FT/PT | Start | End Rate | Hours per week | Rate | |
|-------------------|---------------------|-------|------------|------------|----------------|------|--|
| Library assistant | Library | PT | 04-01-2023 | 31-03-2023 | 2 – 4 | R100 | <input type="button" value="Details"/> |
| Choir director | Wits School of Arts | PT | 01-02-2023 | 30-04-2023 | 4 – 6 | R120 | <input type="button" value="Details"/> |
| Lab assistant | Eskom Holdings SOC | FT | 12-06-2023 | 30-06-2023 | 6 – 8 | R96 | <input type="button" value="Details"/> |

Clicking on **Details** will open up a screen as shown below.

| | |
|---|---|
| Job title | <input type="text" value="Library assistant"/> |
| Location | William Cullen Library, East Campus |
| Description of job | Support the librarian with routine tasks |
| Key responsibilities | Shelf books, stock take, view records |
| Fulltime or part-time | <input type="text" value="Part time"/> |
| Part-time: Number of hours required in a week | <input type="text" value="2 - 4"/> |
| Rate | <input type="text" value="R120"/> |
| Start date | <input type="text" value="04-01-2023"/>  |
| End date | <input type="text" value="31-03-2023"/>  |
| Closing date | <input type="text" value="31-12-2022"/>  |
| Minimum Requirements | Doing 1 st year Elec Eng or 1 st year Bcom. Knowledge of Office 365 |
| Application instruction | Please submit covering letter with a detailed CV. We need you to include full details for 3 referees, copy of ID, proof of resident |
| <input type="button" value="Apply"/> | |
| <input type="button" value="Back"/> | |

Should the student select **Apply**, they will be presented with the following screen for uploading documents.

You are applying for the post of **Library assistant**

Upload documents

| Name | Description | | |
|-----------|-----------------|----------------------|------------------------|
| Cover.pdf | Covering letter | View | Delete |
| Marks.pdf | Transcript | View | Delete |

Upload New Document

Description

No file chosen

The example below shows that the student has already uploaded a cover letter and their transcript. The student may **View** or **Delete** an uploaded file. To upload another document, the student must add a *Description* for the ease of use of the Employer. Then use **Choose File** to browse their local machine and select a file. Press the **Upload** button and after a brief moment, the screen will refresh displaying the newly uploaded document and the corresponding description.

Press the **Apply** button to complete the application process. The student will no longer be able to delete or submit additional documentation. The student will be returned to the search window where they may continue to browse available posts.

2.11.5 Applications History

User story: As a student, I wish to view the progress on all my applications (ie view history). The information will be displayed in a tabular form as shown below. The history will be visible in perpetuity.

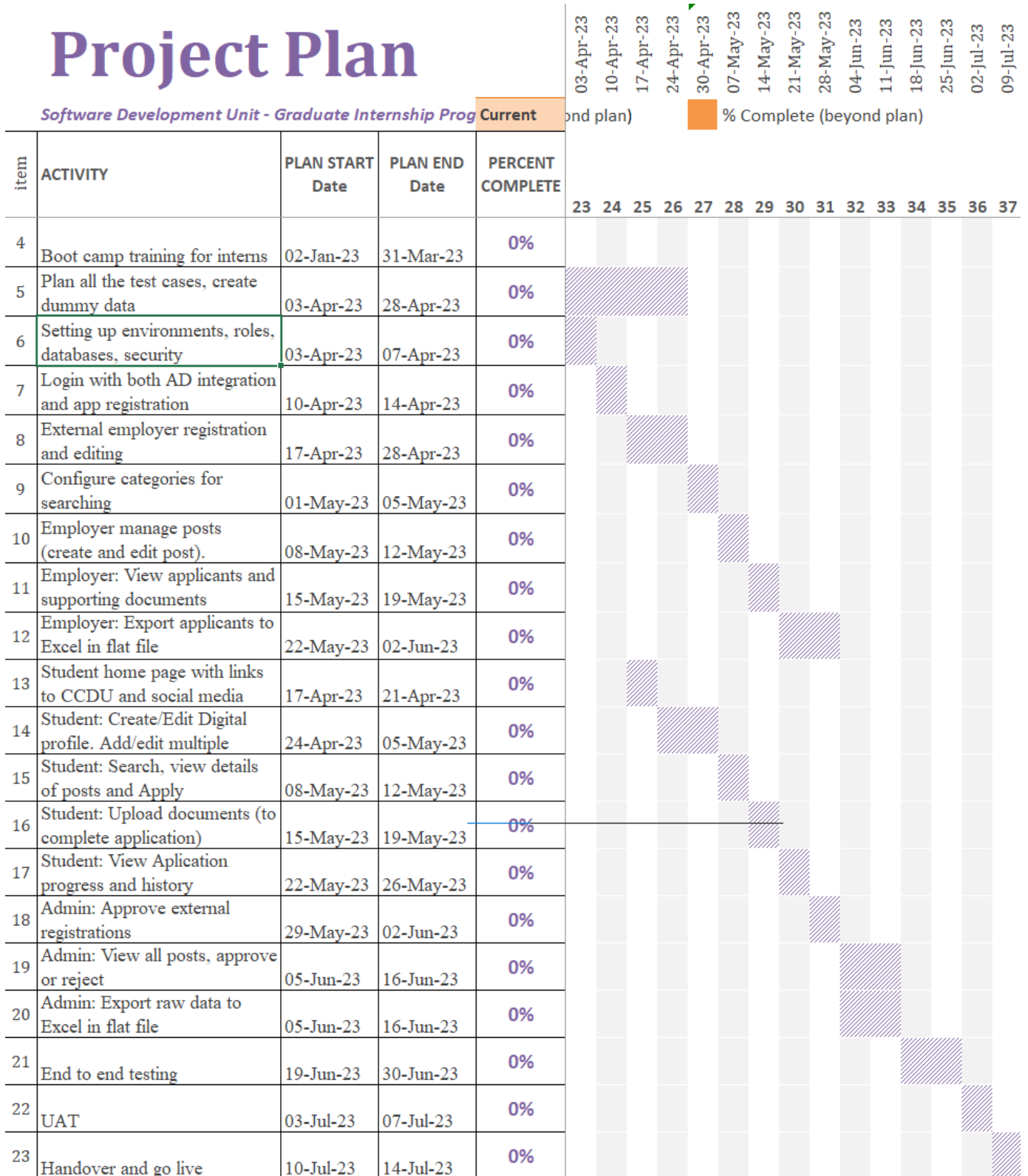
| Job title | Department | FT/PT | Start | End Rate | Outcome | |
|-------------------|-----------------------|-------|------------|------------|--------------|--|
| Library assistant | Library | PT | 04-01-2023 | 31-03-2023 | Pending | Details Withdraw |
| Choir director | Wits School of Arts | PT | 01-02-2023 | 30-04-2023 | Successful | Details |
| Lab assistant | Eskom Holdings SOC | FT | 12-06-2023 | 30-06-2023 | Unsuccessful | Details |
| Tutor | Fac..of Eng & Blt Env | PT | 01-02-2023 | 30-09-2023 | Cancelled | Details |
| Lab assistant | Physics | PT | 01-01-2023 | 31-12-2023 | Withdrawn | Details |

The *Outcome* will indicate the current status as explained below.

- Pending – application was completed and submitted. It is now awaiting review and decision.
- Successful – the candidate was appointed
- Unsuccessful – the candidate was rejected. We encourage employers to use the available features to use this
- Cancelled – set by the system when a post is withdrawn by Employer due to funding no longer being available (this is a future feature).
- Withdrawn – while an application is *Pending*, the candidate has the option to **Withdraw** the application so that it is no longer visible to the Employer.

3 Proposal

Project Plan



Sound software engineering principles will be applied to develop the software to ensure we produce high-quality apps.

3.1 Hosting

As with many moderns application, the application may be hosted either on the Cloud or on-premises. On either platform, three separate but identical environments are required for

1. Development
2. Testing/QA/Staging
3. Production

Costs for hosting in the Cloud can be provided upon request and are excluded from this proposal. It is assumed that Wits ICT would avail suitable environments and costs would be for the CCDU account. Based on the anticipated traffic, an adequately specified server is required to host the production version of the web app.

3.2 Support and Maintenance

After deploying the application, there would be a need for support and maintenance for a period of 12 months. This is charged at 20% of the total cost of development. The support will include bug fixes as well as minor tweaks to ensure that the application is operational. Any feature enhancements, significant changes or subsequent phases will be quoted separately.