**COLLEGE OF SCIENCE**

**COMPUTER SCIENCE DEPARTMENT**

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**PROJECT PROPOSAL**: **ICARE**

**1. INTRODUCTION**

Students, especially freshers are accustomed to leaning on peers, newly found friends and senior course mates concerning issues about their newly found living environment, forgetting the fact that the school has the KNUST COUNSELLING CENTER (KCC), ready and at their beckoning call to assist them with the full might of the school, to make their campus life as blissful as humanly possible. Parents tend to feel uneasy about the kind of academic stress their children are facing on campus and whether the right supervision and care is being put in place to ensure the welfare of their children. A school able to achieve such a feat, acquires the full trust and assurance of the parents of student in the school, which goes a mile to raise the general standard of the school.

My thorough research led me to discover that majority of students have no idea the location, aim and function of the KNUST COUNSELLING CENTER, even with the countless effort placed down by the center to engage students in all their events and news. This makes the job of the counsel reaching out and fulfilling their duties to the students tedious.

Hence the initiative to build an online app which seeks to help the counseling center to engage students in their daily activities and help solve the issues or problems of students, being most at times mislead with information and advices from fellow students which can be easily, strategically and purposely done by the counseling center. The app seeks to show the importance of the relationship between the counseling center and the KNUST student populace and the relevance of the counseling center on campus and in the academic life of students at large. The app will come with well thought of key elements, which seeks to display events and news, provide a platform for students to interact with counselors, call counselors in times of need, listen to audio messages approved by the counseling sector and student chaplaincy, and book appointments with scheduled dates with well trained counselors to help students with their daily situations on campus.

**1.2 AIMS OF PROJECT**

* The mobile app should serve as a means of reaching out to the entire KNUST school populace, for them to be aware of the importance and relevance of the counselling sector in their academic and day-to-day lives throughout their stay in KNUST.
* The mobile app will give the students a mind of comfort and assurance, knowing that there are parent and guardian figures ready to help them and cater for their needs as much as humanly possible.
* The app is meant to also give parents of students, the peace of mind gotten through knowing perfectly well that your ward is being carefully monitored, assisted and given needed time for their well-being.
* Help drive the purpose and ambitions of the counselling sector home.
* Provide an avenue where the counselling sector could express their view and make upcoming events public to the whole KNUST populace.

**1.3 OBJECTIVES OF PROJECT**

* My plan is to build a comprehensive, easy to use and relatable mobile application, using flutter and dart programming language that takes and relays the situations of students and provide credible and reliable feedback from well-known, accredited, accepted and respected counselors across the breadth and length of KNUST COUNSELLING CENTER.

* The mobile app should bridge the gap between students and the KNUST COUNSELLING CENTER, ensuring a continuous flow of harmony which tends to strengthen the relationship each student will need in their daily conversations with their appointed counsellors.
* The app is to give students an opportunity and act as a gate way to help them locate the needed help their parents or guardians won’t be able to provide due to the physical distance between them.
* The app should make the motives and plans of the counselling center clear and precise toe the entire populace without any ambiguity.
* The app should serve as a platform where students get the latest update and news about ins and outs of programs happening or being organized by the counselling center

**1.4 PROJECT METHODOLOGY**

The **ICARE** app will rely strongly on flutter and dart as its main base of structure. The app will utilize specific particulars of the various students on campus, to ensure that the personal safety, security and peace of mind of students are ensured, therefore requiring access to a backend database system. This will help the KNUST COUNSELLING CENTER keep track of all students in their respective colleges and have a detailed insight on their total well-being, how to best guide and assist them and a grasp on the number of students they are handling and the best way to schedule appointments with them. The proposed mobile application will be equipped with the needed key features needed to make it an effective communication tool. These features mainly consist of:

* A user authentication interface which provides security for student information, ensures student confidentiality and creates trust between students and KNUST COUNSELLING SECTOR (KCC). The user authentication will be handled by a backend database system will keep the required information need by students to log in each time the need to use the app. This information will include a student’s username or school e-mail address, index number and reference number provided by the school and only known by the student.
* Homepage with useful information embedded in the form of upcoming events and news. The upper portion will contain images in the form of card which has the aim of arousing student’s interest in the events being organized by the counseling center. The middle aspects will be made to display the latest news about the counselling center. Which will contain the latest achievements and accomplishments of the KNUST COUNSELLING CENNTER. This will student to openly trust the center as a place , where its guaranteed to locate and find help. The bottom aspect of the homepage will contain a tab bar which has all the key features including homepage itself to help with ease of navigation around the healthcare app.
* Chat platform which provides an avenue for students to be in close contact or communication level with their counsellors at the comfort of their hostels. This would help counsellors draw closer students who feel shy or uneasy about opening up and offer them the needed assistance. Each message sent by students will by received by the various counsellors in their respective colleges through their e-mail address. Giving both counsellors and any trained counselling personnel under the supervision of the counselling center the needed time, speed, accuracy and professional efficiency to attend to each individual.
* Call Floating button which gives student the chance of calling the counselling sector directly in emergency situations that require the school’s attention. The call page will be equipped with the active phone numbers of counsellors of the respective colleges across the KNUST campus and the call line of the KNUST security personnel to bring home the sense of safety around a student knowing that the school security services are a call away from assisting them.
* An audio platform with selected audio messages to aid student learn how to deal with situations in academics and audios from the student chaplaincy to help them in their spiritual growth. The growth of motivational speakers and influencers is rapidly rising on various social media platform across the internet. Though their goal is to assist people with their words, it’s not all that are beneficial. The audios on the app will be verified and provided by the counselling center and student’s chaplaincy.
* A booking platform which helps students book various appointments at their own comfort to interact with counsellors. The booking period would be within the working hours of the various counselling center at each college and working days. Each booked appointment will be sent to the emails of the counsellors, giving them a heads and prior notice of the students visit to their office to seek assistance.
* Backend database system that serves as a storage facility for keeping students log-in information such as password, school emails or username, reference number and index number and any vital information needed for utilizing the app to its full potential.

**1.5 PROJECT SCOPE**

The app will encompass the main KNUST campus and it affiliated offsite campuses such as the obuasi campus using the school email address, index numbers and reference numbers as the authentication base.

* The app although extremely beneficial will be limited due to certain factors. These factors are:
* The app will be limited due to network issues based on the geographical location of the students. Due to the undeniable fact that students would need internet bundle to access the app, bad connections or low and no internet bundle time will make accessing the app impossible.
* Aside students, lectures who seek to use the app for their benefits will not be allowed to access the app.
* Graduates who have completed their term of enrollment in the school and also teaching assistance will not be permitted to use the app.

The app will depend greatly on resources such as email addresses, index numbers and reference numbers which will all in turn be provided by the school to all successfully admitted KNUST students and will be in use throughout their academic tenure within the school premises. It will also utilize resources provided mainly by flutter and dart programming since its going to be the main building block and foundation of the app. With the utilization of a database system which will hold the needed login credentials of all students.

**1.6 PROJECT JUSTIFICATION**

My initiative will be necessary to alleviate the stress students go through relying on information from their fellow peers. The app will ensure that students make the required and suitable choice based on the verified and trusted information they receive from the counsellors.

The app will also seek to drastically reduce the immense effort put in by the KNUST COUNSELLING CENTER in gaining the attention of students through notice board and other social media outlets which yields less acknowledgement by the student populace. This effort will be reduced by the news and events sections found on the homepage and notifications received by students.

The app will help freshers who arrive on campus extensively. By helping them connect deeply with the school authorities in the form of KCC to help them settle in comfortable in their new found environment instead of asking fellows students and senior course mates who may not be well suited in giving advice and assistance duly needed.

It will provide an avenue where students can contact for help and assistance in times of need, stress, depression, hardship, etc. and provide them the needed aid from well trained and accredited counsellors across the length and breadth of the KNUST campus. Ensuring that students are provided with the needed help and assistance in their academics and campus lives to peaceful academic tenure for the student.

The general awareness of the app will create a sense of ease and peace in the minds of parents knowing perfectly well that their wards are in constant interaction with qualified school authorities and that the safe and well-being of their children are secured.

**1.7 PROJECT DELIVERABLES**

The app will require a student’s accurate credentials which will be cross checked with the backend database to give the student access to the app. This will ensure safety and secure a student’s privacy on the app. The authenticity of the students username or school e-mail address, index number and password will grant them access.

The homepage will produce as an output, events which will give students the fore knowledge of an activity KCC has placed in the pipeline for their sakes and helps generate interest in these events. It will also display news which will inform students about their achievements and efforts they are putting in to ensure a smooth end efficient environment for students.

The app will contain an audio page which will contain provide students with a range of carefully selected audio messages provided by both KCC and the student counsel to help ensure the growth of the student both mentally and spiritually.

The app will provide students with feedback from counsellors on the chat page to ensure effective communication and response time. It will also provide confirmation on bookings sent to counsellors through the booking page. Ensuring that student have a definite time and location for the appointments.

**1.8 PROJECT DEVELOPMENT TOOLS**

The app will use flutter and dart as the main building base of the whole project. Therefore, the app UI will have and utilize to some extent the full potential and features provided by flutter and dart.

It will also utilize a backend database system which will keep the credentials of students needed to authenticate their identity before being allowed unto the app. This will help ensure safety and privacy of the user on the app.

The app will be fully utilized on android devices as its main hardware components. Devices powered by android are massively used throughout KNUST campus and this will help with the wide spread and usage of the healthcare app to its fullest advantage by students. It will also make it available to students across campus and help the objectives and goals of KCC spread wide and far.

**1.9 CONCLUSION**

In a nutshell, this initiative with its key features, wide range of reach, maneuverability and ease to use is to help ease the stress of freshers on campus, aid continuing students with their daily lives on campus and help KCC reach out to the student populace. My aim is to bridge the long invincible gap that exist between KNUST student populace and the KNUST COUNSELLING CENTER by using my healthcare app initiative which has both parties in mind without the stress of fear, insecurity, shyness, influence from fellow peers, etc. getting in the way of the motives of KCC reaching out to students.