**Info’s 354 Project Documentation**

**First Information session**

Stellenbosch is home to an institution that goes by the name of “The Cape Winelands Collage” who up until now has been using excel to manage their students and have now grown beyond the capabilities of excel. They have contacted you as the 13 software development companies to develop a student information system for them. At the end they will select one system as the system that they will implement, that will be the group that wins the ISM 354 project award. Of course this institution doesn’t exist in the real world, so you will go ahead as part of your implementation and stylise it as you see fit (some groups always like to put in a bit of extra flair and design a logo or whatever it is) it’s not a requirement but there will be groups who like to do that. You are asked to replace the excel based system and implement two components of their complete student implementation system. Contrast your project with the honours project, they were asked to implement 5 components of the system, I’m only asking you to implement 2 of those 5 components.

**• The qualifications/programs and modules of the institution**. This is a relatively simple requirement perhaps, by you are asked to design a framework in which the collage can manage its qualifications.

**• Manage the results of the collage,** to allow lecturers to upload results and the system to allow students to see their resultsin the wayyou are familiar with from your own time as a student.

There are 3 different representatives from the institution (lecturing staff, administrative staff, CIO) These 3 stakeholders are designed intentionally like this, there is one missing (student) because in practice the student is not one of the employees of the organisation so very rarely do your external stakeholders get to play a role in the requirements solicitation process. Those 3 stakeholders are going to talk to you about different requirements, the CIO’s only purpose is to tell you what to do at a high level, it is a very minor role for this particular application, but there are some key take-aways. The academic staff will likely talk to you about their requirements for loading marks into the system, etc. and then the administrative staff will talk to you about more backend roles, things like loading the programmes into the system, loading the students into the system, etc. “There will be quite a lot of scope here for interpretation, you will also have scope to design the application largely in the way you see fit, I’m looking for creative solutions within the scope of the possible creativity with odoo, it doesn’t allow you to have complete flexibility so you are driven in some ways in a certain direction.

Student = Green

Academic = Blue

Admin = Orange

**Meeting with CIO**

Here at the Cape Winelands Collage, we would like you to develop a new student information system for us based on the odoo open source version 12. You should build this system in such a way that **stakeholders log into the system to access it**, and that each stakeholder **only has access to the data** that they should have access to. In this regard **students** should only ever be able to see **their own student record**, at the same time **academic staff** should only ever be able to **load marks for modules** that are **within their own academic department**. They should also be able to **see the full marks of any student** at the collage **(read only view of any student, write view of their own modules)** they should **not be able to create courses** or modules themselves, **or students** or any of that **ancillary data**. Academic staff will therefore **only ever create marks** in the system. Administrative staff on the other hand will **never enter marks** onto the system, rather they will **load students** onto the system, either **one at a time** **or** they will upload **lists** of students, and they will **create courses and modules** on the system. They will also **not** be able to look at the students’ marks.

**Meeting with Administrative Officer**

I would like to be able to create programs and define a program as a qualification that has a name and some sort of shortened form, for example, you could have a qualification called a Batchelor of Arts in Socio-Informatics, which would have a reduced form BA-SocInfo or something like that. That qualification will have a series of modules associated with it. I would also like to be able to load students into the system, you can use your discretion here as to what fields you think are appropriate for a student to have. The system should generate a student number for the student. Students are linked to programs that they are enrolled for. You can assume that a student will only ever be enrolled for one program. Students then take modules from that program and are awarded marks for the modules. Whilst I as an administrative officer will never enter those marks, I will from time to time need to see what those marks are. Students will enrol for those modules as they progress through their course work, and here we have a set of diverging requirements, the requirements for the bare minimum vs the requirements for an extended approach. At a bare minimum level, you should be able to enter a mark per student per enrolled module once in their lifetime. But it is possible for those of you who want to go a step further, that students may enrol for the same module more than once, they might fail a module, or might choose to better their marks for that module. For those groups that wish to excel, you may wish to model the ability for a student to be able to enrol for a module in a year.

**Second information session:**

Stakeholder 3: Academic staff member.

• Primary responsibility with student information: 2 Fold

• 1. View transcripts of students lecturer teaches (current year or any year of the past) & view entire class list to get an idea of which students are in lecturers class.

• 2. Load the final results for a student at the end of a given module, students complete course. Needs to load marks as easily as possible (add download option for spreadsheet with student information , with a portal for lecturers to provide it back to the system, load all marks at once (large classes).  \*\*\*\* look at modelling the marks per course. To avoid lecturer finding it from each students record individually.

• Once marks have been uploaded to student portal, students must be able to access and view the marks. Academic staff never going to tell a student what their mark is. Students must only have access to their own marks.

• Academic staff may ask collegues (i.e. Departmental secretary - any academic staff in that particular department / exception administrative staff should be able to do it if necessary) to load marks on their behalf. Vice versa, colleagues may ask academic staff to load their marks. Not possible to load marks for another department, only courses in my department.

• Upload file type: CSV or excel spreadsheet.

• Transcript: could be nice to have all modules in department, option to view students entire transcript (added extra).

• Students amount of modules is variable, student associated with a course, and a course is associated with a set of modules in a year, but its also possible that you could be enrolled for a past year module (fail).

• Lecturing multiple modules within a department.

• Class diagram.

Test