***Hyperledger***

1. **A defined use case with the projected benefits (to you and the participants)**

**Actor :** Student/Individual going to take education module

**Stakeholders :** University uploading the module

**Preconditions :** University should have posted the course modules that can be accessed by a student

**Triggers :** Student sign up to get education on a module/course

**System :**

1. Student signs up to the innov-edu platform
2. They can also sign up for the loyalty program points before starting their education modules
3. They choose a course name they wish to complete
4. During the education process, their progress will be maintained if they wish to leave and resume later
5. Once completed they will get an option to ask for a certificate that can be used elsewhere as a proof that they have completed the course. They can also receive 10 loyalty points
6. Student can wish to stay and do more courses

**Goal:** Easy interface and navigation for the student to complete the courses (and get certified)

**Benefits :** Thinking over the use case can improve the interface of the website. For example, it should be easy for the student to find the sign up or register option. They should be able to view courses and a little description on them, about the teachers in them. The registering in any course should be easy and fast.

1. **Identified participants**

It is important to identify participants. Each participant is their own unique node in the network. The main participants that the network will include are :

1. **Students :** Any person who wants to take the courses/education modules/videos being offered on the platform. Their new instance will have limitations to the kind of transactions they can do and the assets they can own.
2. **Universities :** Any organization or University offering the modules are also a part of this business network. When their new instance is created, they have the ability to add or remove assets, where assets are the modules/videos. However, they have limitations on the participants addresses.

**The next participant is focused on certification issuing which is a separate code :**

1. **Administrators :** The Admins that will manually be issuing certificate to the students. They will know the student address their asset), and via the University address, they will do the transaction of issuing a certificate to the student.
2. **The process mapped with key events**

The process of the website :

1. An individual comes up on the Innov-edu platform and browses over the services we have to offer : It should be ensured that the website is easy to navigate so that anyone new coming on the website can find everything easily.
2. The individual decides to sign up as a student. They can register into a course and sign up for the loyalty program : The student should be able to know about the loyalty program easily.
3. Another individual may decide to sign up as a teacher. They should be aware that if they are not in link with any University then they will come under InnovFin and then the certificate provided on their modules will include the InnovFin University name.
4. The student who registered for an event can request for a certificate and loyalty points. (**certification issuing system starts from this step**)
5. The administrator gets the request for certificate by the student (the student address and the individual Id which is the identification string value for individuals). The administrator issues the certificate and also checks the box to send 10 loyalty points.
6. The student receives the certificate and points. They can take furthermore classes and courses of they wish to.
7. **Critical data to be exchanged**

Critical Data to be exchanged :

1. Adding and taking down modules : Without this data, the education platform will not run
2. Address of the individual : to avoid any misuse of the address
3. Loyalty points earned : it does not seem like a public data that others must know about
4. New individual instance created : The information/data about a new participant
5. **Any rules to be applied in the system**

There are few critical points to be taken care of which can act as rules for the system :

1. The student should not be able to access any other student's progress to maintain privacy.
2. The adding and removing assets for Universities - courses and modules - should be only in the hands of the University officials and not anyone. Not even the administrators issuing certificates should be able to that.
3. Universities should have an option to request for their certificate template change when they sign up with the platform. This ensures that they get the chance to pitch in their requests and also this does not have to be done frequently. Although they get the ability to change their requests later on if they wish to. (certificate issuing)
4. The loyalty points of one Individual should not be shared with anyone else. Similarly, metamask wallet address should be secure and not accessed by anyone else. This should be mostly coded on the user-side and not server-side to avoid this.