ASSUMPTION: ALL THE TRIVIAL PROCESSES LIKE A USER LOGS OUT WITHOUT ANY ACTIVITY IS NOT CONSIDERED HERE

```
                  ┌─────────┐
                  │  Start  │
                  └────┬────┘
                       │
   ┌──────────────────┐│              ┌──────────────────────┐
   │                  ││              │ Login details        │ SO
   │  Enter URL of the│  UI  ────────▶│ displayed            │
   │  website         │              └──────────┬───────────┘
   │                  │                          │
   │                  │              ┌───────────▼──────────┐
   │                  │              │ HOD enters login     │ UI
   │                  │              │ details              │◀──┐
   └────────┬─────────┘              └──────────┬───────────┘   │
            │                                   │               │
   ┌────────▼─────────┐                         │               │ NO
   │                  │ SO              C   ┌────▼────┐          │
   │ Display homepage │                  ╱  │   ID    │  ╲       │
   │                  │                 ╱   │Password │   ╲──────┘
   └────────┬─────────┘                 ╲   └─────────┘   ╱
            │                            ╲     │        ╱
   ┌────────▼─────────┐ UI                ╲────┼───────╱
   │                  │                        │ YES
   │   HOD Login      │                   ┌────▼────┐
   │                  │                   │   A1    │
   └──────────────────┘                   └─────────┘
```

```
        ( A1 )
           |
           v
+------------------------+                    +------------------------+
|                        |                    |   Confirm Locking      |
|   Software displays    |                    |                    SO  |
|   course proposal      |  SO                +------------------------+
|   page                 |                               |
|                        |                               v
+------------------------+                    +------------------------+
           |                                  |  HOD locks courses to  |
           v                                  |  be proposed           |
+------------------------+                    |                        |
|   HOD chooses the      |                    |                    UI  |
|   courses and          |                    +------------------------+
|   respective course    |                               |
|   faculty              |                               v
|                    UI  |                    +------------------------+
+------------------------+                    |  The system locks the  |
           |                                  |  courses               |
           |                                  |                    SO  |
           +----------------------------------+------------------------+
                                                         |
                                                         v
                                              +------------------------+
                                              |   Logout               |
                                              |                    UI  |
                                              +------------------------+
                                                         |
                                                         v
                                              +------------------------+
                                              |  HOD is logged out of  |
                                              |  the system            |
                                              |                    SO  |
                                              +------------------------+
                                                         |
                                                         v
                                                      ( A2 )
```

Flowchart 1

A2

↓

Home Page — SO

↓

DOAA Login — UI

→

Login details displayed — SO

↓

DOAA enters login details — UI

↓

ID Password — C

- NO → (back to DOAA enters login details)
- YES ↓

A3

Flowchart 2

A3

↓

The list of departments is displayed — SO

↓

DOAA selects the department — UI

↓

Software displays list of courses proposed by HOD of that department — SO

↓

DOAA validates and suggests with comments — UI

↓

DOA confirms — UI

→

Generates lists of courses available — SO

↓

Logout — UI

↓

DOAA is logged out of the system — SO

↓

A4

Activ
Go to S

```
        ( A4 )
          |
          v
+-------------------+  UI        +-------------------+  SO
| Enter URL of the  |      +---->| Login details     |
|     website       |      |     |    displayed      |
|                   |      |     +-------------------+
|                   |      |              |
|                   |      |              v
+-------------------+      |     +-------------------+  UI
          |                |     | Student enters    |<----+
          v                |     |  login details    |     |
+-------------------+  SO   |    +-------------------+     |
|     Display       |      |              |               |
|    Homepage       |      |              v               | NO
+-------------------+      |        C    / \              |
          |                |            /   \             |
          v                |           / ID  \------------+
+-------------------+  UI   |          /Password\
|  Student Login    |------+           \       /
+-------------------+                   \     /
                                         \   /
                                          \ /
                                           |  YES
                                           v
                                        ( A5 )
```

A5

List of courses available — SO

Student selects courses to register — UI

NO

Confirm — C

YES

Logout — UI

Student is logged out of the system — SO

A6

```
        ┌──────┐
        │  A6  │
        └──┬───┘
           │
           ▼
┌─────────────────┐                ┌─────────────────┐  UI
│   Home Page     │  SO ──────────▶│  DOAA login     │◀──────┐
│                 │                │  enters detail  │       │
└────────┬────────┘                └────────┬────────┘       │
         │                                  │                │
         ▼                                  ▼                │
┌─────────────────┐  UI                  ╱───────╲           │
│   DOAA login    │                    ╱    ID     ╲    NO   │
│                 │                   ╲  Password  ╱─────────┘
└────────┬────────┘                    ╲───────╱
         │                           C     │
         ▼                                 │ YES
┌─────────────────┐  SO                    ▼
│  Login details  │                    ┌──────┐
│   displayed     │                    │  A7  │
└────────┬────────┘                    └──────┘
         │
         └────────────────────────────▶
```

```
                    ┌─────┐
                    │ A7  │
                    └──┬──┘
                       │
                       ▼
        ┌──────────────────────────┐
        │  Number of students      │
        │  registered for a        │    SO
        │  particular course is    │
        │  displayed               │
        └────────────┬─────────────┘
                     │
  C                  ▼
              ╱──────────────╲
             ╱ No. of students ╲
            ╱  in a particular   ╲
           ╱ course > 10 or        ╲─────────────────┐
           ╲ exceptions by         ╱                 │
            ╲     DOAA            ╱                   │
             ╲──────────────────╱                    │
                     │ YES                            │ NO
                     ▼                                ▼
        ┌─────────────────────┐         ┌─────────────────────┐
        │  Confirm that course│         │  Reject that course │
        │  for summer term    │ UI      │                     │ UI
        └──────────┬──────────┘         └──────────┬──────────┘
                   │                                │
                   ▼                                ▼
        ┌─────────────────────┐         ┌─────────────────────┐
        │      Logout         │ UI      │      Logout         │ UI
        └──────────┬──────────┘         └──────────┬──────────┘
                   │                                │
                   ▼                                ▼
        ┌─────────────────────┐         ┌─────────────────────┐
        │  DOAA is logged     │         │  DOAA is logged     │
        │  out of the system  │ SO      │  out of the system  │ SO
        └──────────┬──────────┘         └──────────┬──────────┘
                   │                                │
                   ▼                                ▼
               ┌─────┐                          ┌─────┐
               │ A8  │                          │ A8  │
               └─────┘                          └─────┘
```

```
        ( A8 )
          |
          v
  +----------------+                    +------------------+
  |   Home Page    |  SO                | Student login    |  UI
  +----------------+                    | enter details    |
          |                             +------------------+
          v                                      |
  +----------------+  UI                         v
  | Student Login  |                          /        \
  +----------------+                         /   ID      \
          |                          C      /  Password   \   NO
          v                         <------<               >----->
  +----------------+  SO                    \             /
  | Login details  |                         \           /
  |   displayed    |                          \   YES   /
  +----------------+                              |
          |                                       v
          |                                    ( A9 )
          +---------------------------------->
```

A9

SO — List of final courses

UI — Student selects courses to enroll

SO — Enroll in course proposed finally by DOAA, (after removing courses that has less than 10 students)

SO — Fee Payment API

UI — Generate fee slip

SO — The system generates the fee slip

UI — Logout

SO — Student is logged out of the system

A10

```
        ( A10 )
           │
           ▼
    ┌──────────────┐                              ┌──────────────────┐
    │  Home Page   │                         UI   │  Faculty login   │
    │              │── SO                          │  enter details   │◄────┐
    └──────────────┘                              └──────────────────┘     │
           │                                              │                 │
           ▼                                              ▼                 │
    ┌──────────────┐                                     ╱ ╲                │
UI  │ Faculty Login│                          C         ╱   ╲          NO   │
    │              │                                   ╱  ID  ╲─────────────┘
    └──────────────┘                                   ╲Password╱
           │                                            ╲     ╱
           ▼                                             ╲   ╱
    ┌──────────────┐                                      ╲ ╱
SO  │ Login details│                                    YES │
    │  displayed   │                                        ▼
    └──────────────┘                                    ( A11 )
           │
           └──────────────────────────────────────►
```

A11

Task you want to perform

UI — View list of students

SO — System displays list of students

UI — Logout

SO — The faculty is logged out of the system

A12

Enter grades

UI

Choose from

UI — Update/ Enter grades

UI — Lock

SO — System locks the grades

UI — Logout

SO — The faculty is logged out of the system

A12

UI — Lock grades

SO — System lock the grades

UI — Logout

SO — The faculty is logged out of the system

A12

UI — View Time Table

SO — System displays the time table

UI — Logout

SO — The faculty is logged out of the system

A12

```
        ( A12 )
           │
           ▼
    ┌──────────────┐  SO        ┌──────────────────┐  UI
    │  Home Page   │            │  AR login enter  │◀─────────┐
    └──────────────┘            │     details      │          │
           │                    └──────────────────┘          │
           ▼                             │                     │
    ┌──────────────┐  UI                 ▼                     │  NO
    │   AR Login   │           C    ◇─────────◇                │
    └──────────────┘              ╱             ╲               │
           │                     ◇    ID         ◇─────────────┘
           ▼                      ╲  Password   ╱
    ┌──────────────┐  SO           ◇─────────◇
    │ Login details│                    │
    │  displayed   │                    │ YES
    └──────────────┘                    ▼
           │                        ( A13 )
           └────────────────────────────▲
```

```
                    ( A13 )
                       |
                       v
  +-------------+                    +------------------+
  |  Choose     | ----------------> | Time Table       |  UI
  <   from      >                   | generation API   |
  +-------------+                    +------------------+
       |                                      |
       v                                      v
  +------------------+  UI           +------------------+  SO
  | Grade sheet      |               | Display time table |
  | generation API   |              +------------------+
  +------------------+                        |
       |                                      v
       v                             +------------------+
  +------------------+  SO           | Logout           |  UI
  | Display grade    |              +------------------+
  | sheet            |                        |
  +------------------+                        v
       |                             +------------------+  SO
       v                             | AR is logged out of |
  +------------------+  UI           | the system          |
  | Logout           |             +------------------+
  +------------------+                        |
       |                                      v
       v                                   ( A14 )
  +------------------+  SO
  | AR is logged out of |
  | the system          |
  +------------------+
       |
       v
    ( A14 )
```

```
          ( A14 )
             │
             ▼
┌─────────────────┐              ┌─────────────────┐
│                 │              │  Login details  │
│  Summer Term    │              │    displayed    │      SO
│  Processing     │   SO         │                 │
│  Software       │              └─────────────────┘
│                 │                       │
└─────────────────┘                       ▼
             │                   ┌─────────────────┐      UI
             ▼                   │ Student enters  │
┌─────────────────┐             │  login details  │◄────────┐
│    Display      │             └─────────────────┘         │
│    Homepage     │   SO                  │                 │
│                 │                       ▼                 │ NO
└─────────────────┘                      ╱ ╲                │
             │                          ╱   ╲               │
             ▼                    C    ╱ ID   ╲             │
┌─────────────────┐                   ╲Password╱───────────┘
│  Student Login  │                    ╲     ╱
│                 │   UI                ╲   ╱
└─────────────────┘                      ╲ ╱
             │                            │ YES
             └──────────────────────────►│
                                         ▼
                                      ( A15 )
```

```
                A15


   ┌──────────────────┐                      ┌──────────────────┐
   ╱                    ╲                     │  View time table │
  ╱    Choose            ╲───────────────────▶│               UI │
  ╲     from             ╱                     └──────────────────┘
   ╲                    ╱                              │
    └──────────────────┘                              ▼
            │                              ┌──────────────────┐
            ▼                              │ System displays  │
   ┌──────────────────┐                    │ time table    SO │
   │ View grade sheet │                    └──────────────────┘
   │               UI │                             │
   └──────────────────┘                             ▼
            │                              ┌──────────────────┐
            ▼                              │                  │
   ┌──────────────────┐                    │ Logout           │
   │ System displays  │                    │               UI │
   │ grade sheet   SO │                    └──────────────────┘
   └──────────────────┘                             │
            │                                        ▼
            ▼                              ┌──────────────────┐
   ┌──────────────────┐                    │ Student is logged│
   │                  │                    │ out of the system SO │
   │ Logout           │                    └──────────────────┘
   │               UI │                             │
   └──────────────────┘                             ▼
            │                                     ( STOP )
            ▼
   ┌──────────────────┐
   │ Student is logged│
   │ out of the system SO │
   └──────────────────┘
            │
            ▼
        ( STOP )
```