Team 5

CS 374

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Specifications Omega

The Class Conflict
Specifications - Z

SWITCH::= on | off

Report::= Name of the conflicts

Time: 8….18
Time > 0

Class_ID: N Cl
Class_ID >0

Student _ID: N
Student _ID > 0

Conflict: N C
Conflict > 0

TimeButtons
Input: 8...18 → SWITCH

ClassButtons
Input: 1……N → SWITCH

ReportButtons
Extput: 1…. Conlict → Report

Report:
List of the conflicts with student_ID.

Complete state space
attempt #1

TimeButtons Class
Buttons ReportButtons

Conlict !=0 →TimeButtons(NewTime) = on V Report
Buttons(NewTime) != 0

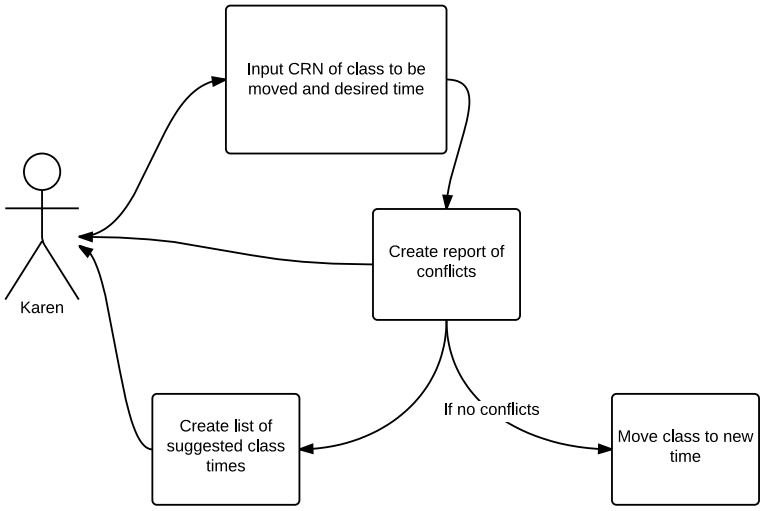
Complete state space
attempt #2
TimeButtons Class
Buttons ReportButtons

Conlict !=0
=> TimeButtons(NewTime) = on V Report
Buttons(NewTime)!=0 Conlict = 0 =>
(f:8…18 * TimeButtons(f)= off ^ ReportButtons(f)!=0)

Logic specifications
Class Conflict formula:

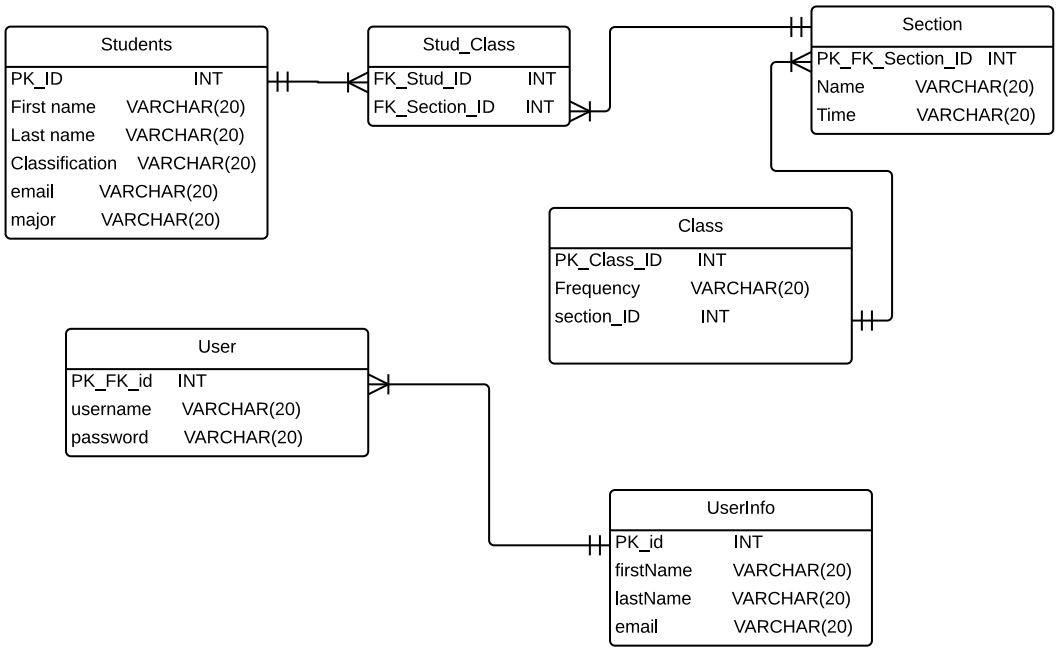
- New class time which is the class time we want replaces the old class time
  which is the class time is right now.
- Compare the new time to students schedules who are in the class.
- List all the conflicts which is the new class time conflict with students' other
  classes schedule from High priority to low priority
  a)Senior has the Highest priority then Junior then sophomore then freshman (class size will be considered afterwards)
- List the number of conflicts.
- Suggest a new time

UML Use Case

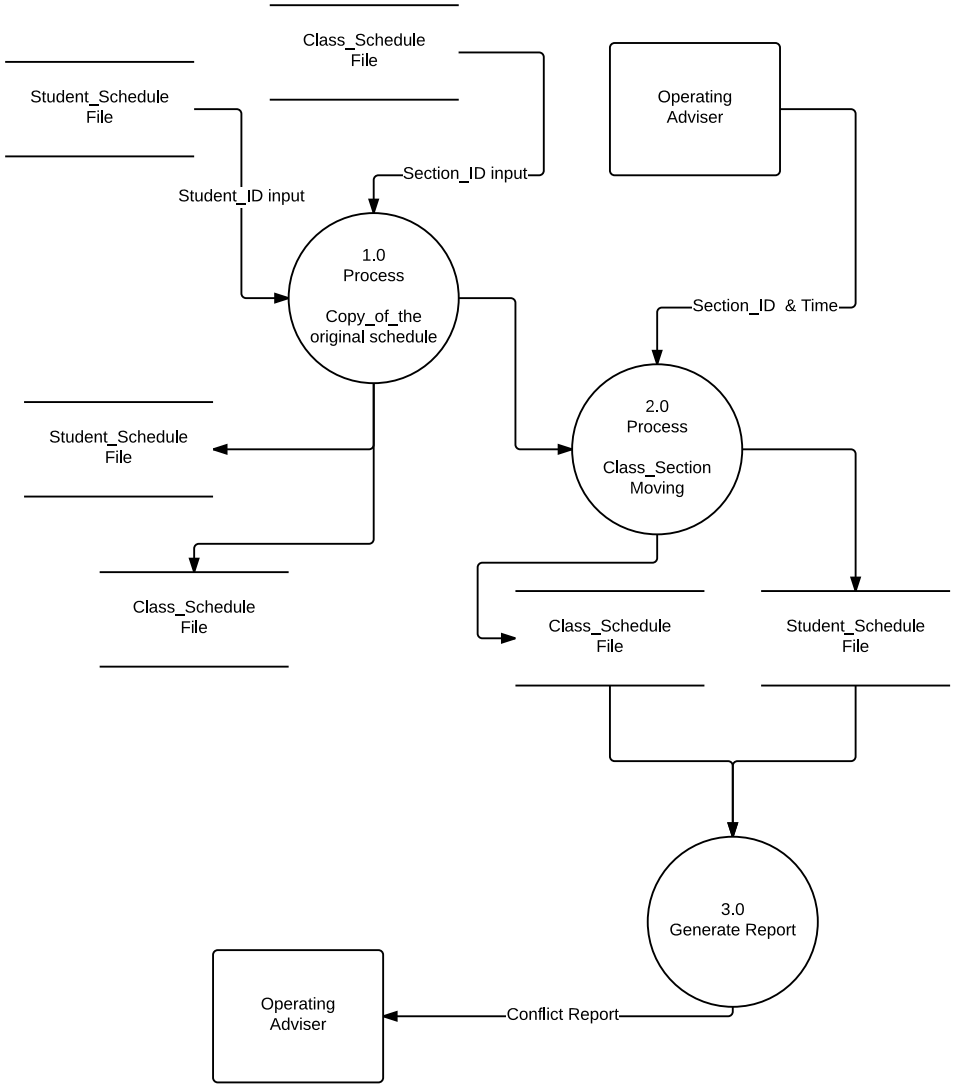

Input CRN of class to be moved and desired time
Karen
Create report of conflicts
Create list of suggested class times
If no conflicts
Move class to new time

Class Schedule

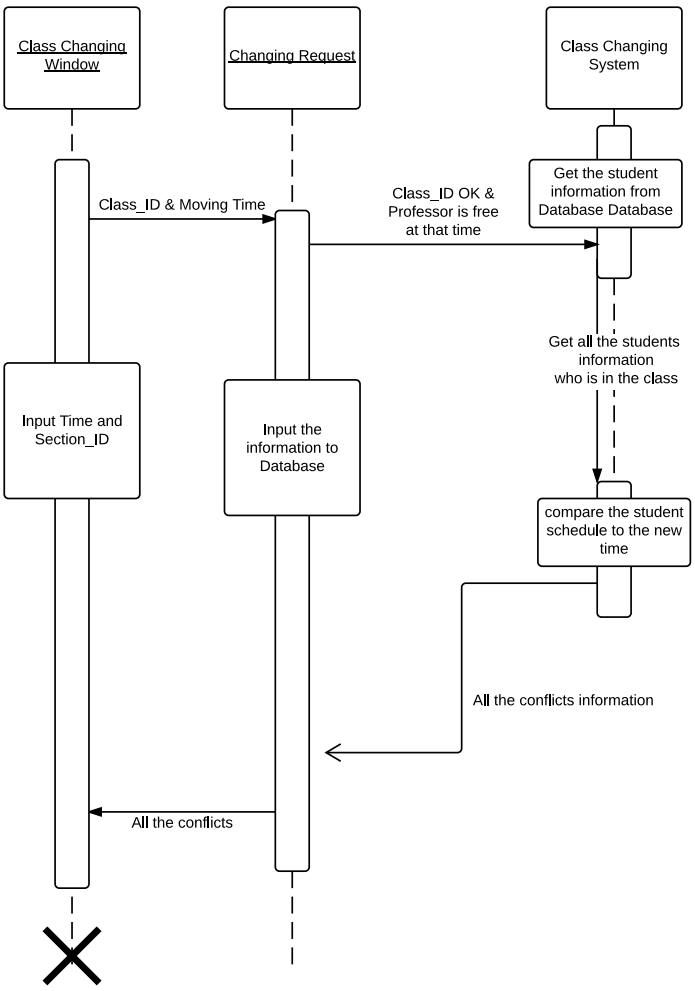
Entity Relationship Diagram



Data Flow Diagram



UML Sequence Diagram



Finite State Machine