K3Requirements

***Model*** **K3Requirements** ***extends*** **K3Classes** ***begin***

**// Top level items in the system**

***refined*** **system** ***begin***

***constant*** ***Duration*** **!shortDelay** ***is*** **deferred;**

***constant*** ***Duration*** **!reasonableDelay** ***is*** **deferred;**

**// k3data Requirements**

***partial*** ***Model*** **D1;**

***partial*** ***Model*** **D2;**

***partial*** ***Model*** **D3;**

***partial*** ***Model*** **D4;**

***partial*** ***Model*** **D5;**

***partial*** ***Model*** **D6;**

***partial*** ***Model*** **D7;**

***partial*** ***Model*** **D8;**

***partial*** ***Model*** **D9;**

**// k3ucs Requirements**

***partial*** ***Model*** **R1;**

***partial*** ***Model*** **R2;**

***partial*** ***Model*** **R3;**

***partial*** ***Model*** **R4;**

***partial*** ***Model*** **R5;**

***partial*** ***Model*** **R6;**

***partial*** ***Model*** **R7;**

***partial*** ***Model*** **R8;**

***partial*** ***Model*** **R9;**

***partial*** ***Model*** **R10;**

***partial*** ***Model*** **R11;**

***partial*** ***Model*** **R12;**

***partial*** ***Model*** **R13;**

***partial*** ***Model*** **R14;**

***partial*** ***Model*** **R15;**

***partial*** ***Model*** **R16;**

***partial*** ***Model*** **R17;**

***partial*** ***Model*** **R18;**

***partial*** ***Model*** **R19;**

***partial*** ***Model*** **R20;**

***partial*** ***Model*** **R21;**

***partial*** ***Model*** **R22;**

***partial*** ***Model*** **R23;**

***partial*** ***Model*** **R24;**

***partial*** ***Model*** **R25;**

***partial*** ***Model*** **R26;**

***end*** **system;**

***end*** **K3Requirements;**

**system.D1** ***begin***

***Requirement*** **~d1** **// Implemented in class definitions**

**"A class shall be either a non-clinical class or a clinical class";**

***Guard*** **classPartitioning** ***is*** ***ensure*** **°Class** **=** **ClinicalClass** ***union*** **NonClinicalClass;**

***end*** **system.D1;**

**system.D2** ***begin***

***Requirement*** **~d2**

**"A non-clinical class shall specify the course name, lecture room requirements**

**and instructor needs"**

**:** ***concretisation*** ***is*** **dd2;**

***Requirement*** **~dd2** **// Implemented in class definitions**

**"A non-clinical class shall specify the class name, lecture room needs**

**and instructor needs";**

***end*** **system.D2;**

**system.D3** ***begin***

***Requirement*** **~d3**

**"A clinical class shall specify the course name, lecture room requirements,**

**clinical site needs, lecture instructor needs and clinical lab instructor**

**needs"**

**:** ***concretisation*** ***is*** **dd3;**

***Requirement*** **~dd3** **// Implemented in class definitions**

**"A clinical class shall specify the class name, lecture room needs, clinical**

**site needs, lecture instructor needs and clinical lab instructor needs";**

***end*** **system.D3;**

**system.D4** ***begin***

***Requirement*** **~d4**

**"A Program of Study shall consist of a program name and listing of required**

**classes (both clinical and non-clinical) that must be completed"**

**:** ***concretisation*** ***is*** **dd4;**

***Requirement*** **~dd4** **// Implemented in class definitions**

**"A Program of Study definition shall include a name and listing of**

**required classes (both clinical and non-clinical) that must be**

**completed by students enrolled in that Program of Study";**

***end*** **system.D4;**

**system.D5** ***begin***

***Requirement*** **~d5**

**"The report of needed classes shall include (but not be limited to) classes**

**to be offered, number of sections needed, number of labs needed, and**

**room types needed"**

**:** ***concretisation*** ***is*** **dd5;**

***Requirement*** **~dd5**

**"The report of needed classes shall include (but not be limited to)**

**classes to be offered by the Nursing Department, number of sections**

**needed, number of labs needed, and room types needed";**

**EReport** **eReportOfNeededClasses** ***is*** **deferred;**

**Information** **infoOnClassesToBeOfferedByNursingDep** ***is*** **deferred;**

**Information** **infoOnNbSectionsNeededByNursingDep** ***is*** **deferred;**

**Information** **infoOnNbLabsNeededByNursingDep** ***is*** **deferred;**

**Information** **infoOnRoomTypesNeededByNursingDep** ***is*** **deferred;**

**dd5** ***is*** ***when*** **eReportOfNeededClasses** ***ensure***

**{** **infoOnClassesToBeOfferedByNursingDep,**

**infoOnNbSectionsNeededByNursingDep,**

**infoOnNbLabsNeededByNursingDep,**

**infoOnRoomTypesNeededByNursingDep**

**}** ***in*** **bop.contents;**

***end*** **system.D5;**

**system.D6** ***begin***

***Requirement*** **~d6**

**"Classes for a given cohort shall not conflict with regards to the time**

**and day that they are offered"**

**:** ***concretisation*** ***is*** **dd6;**

***Requirement*** **dd6**

**"The sequence of classes of any student of any cohort shall not conflict**

**with regards to the time and day that they are offered"** ***is***

***for all*** **cohort** ***of*** **system.cohorts**

***for all*** **student** ***of*** **cohort.students**

***for all*** **section1,** **section2** ***of*** **student.sequenceOfClasses.sections**

***such that*** **section1** **<>** **section2**

***ensure*** ***not*** **overlap** **(section1.beginning,** **section1.°duration,**

**section2.beginning,** **section2.°duration);**

***end*** **system.D6;**

**system.D7** ***begin***

***Requirement*** **~d7**

**"A clinical lab section shall include the clinical site name,**

**the class instructor, day and time of the lab"**

**:** ***concretisation*** ***is*** **dd7;**

***Requirement*** **~dd7** **// Implemented in class definitions**

**"A clinical lab section shall include the clinical site name,**

**the class instructor, day and time of the section";**

***end*** **system.D7;**

**system.D8** ***begin***

***Requirement*** **~d8** **// Implemented in class definitions**

**"Clinical site information shall include (but not be limited to) the name**

**of the site, contact person and contact information";**

***end*** **system.D8;**

**system.D9** ***begin***

***Requirement*** **~d9** **// Implemented in class definitions**

**"The system shall contain contact information (e-mail and phone number)**

**for all people relevant to the system including (but not limited to)**

**staff members, students, lecture instructors, clinical lab**

**instructors and clinical site administrators";**

***end*** **system.D9;**

**system.R1** ***begin***

***Requirement*** **~r1**

**"Program Administrators and Nursing Staff Members shall be able to add**

**clinical classes or sections to a sequence of classes"**

**:** ***concretisation*** ***is*** **{rr1a,** **rr1b,** **rr1c,** **rr1d, rr1e};**

**// ..............................................................................**

***Requirement*** **rr1a**

**"Each Program Administrator or Nursing Staff Member shall be able to**

**add new clinical classes to the system";**

***Event*** **eAddClinicalClasses** ***begin***

***occurrence*** ***is*** **deferred;**

**ClinicalClass** **{}** **clinicalClasses;**

***end*** **eAddClinicalClasses;**

**rr1a** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddClinicalClasses** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.clinicalClasses** ***in*** **system.clinicalClasses;**

**// ..............................................................................**

***Requirement*** **rr1b**

**"Each Program Administrator or Nursing Staff Member shall be able to add**

**new sections to the system";**

***Event*** **eAddSections** ***begin***

***occurrence*** ***is*** **deferred;**

**Section** **{}** **sections;**

***end*** **eAddSections;**

**rr1b** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddSections** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.sections** ***in*** **system.sections;**

**// ..............................................................................**

***Requirement*** **rr1c**

**"Each Program Administrator or Nursing Staff Member shall be able to**

**add new sequences of classes to the system";**

***Event*** **eAddSequencesOfClasses** ***begin***

***occurrence*** ***is*** **deferred;**

**SequenceOfClasses {} sequencesOfClasses;**

***end*** **eAddSequencesOfClasses;**

**rr1c** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddSequencesOfClasses** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.sequencesOfClasses *in*** **system.sequencesOfClasses;**

**// ..............................................................................**

***Requirement*** **rr1d**

**"Each Program Administrator or Nursing Staff Member shall be able to add**

**any clinical classes in the system to any sequence of classes in the system"**

***Event*** **eAddClinicalClassesToSequence** ***begin***

***occurrence*** ***is*** **deferred;**

**ClinicalClass** **{}** **clinicalClasses**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalClasses;**

**SequenceOfClasses** **sequenceOfClasses**

**:** ***Guarantee*** **g2** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.sequencesOfClasses;**

***end*** **eAddClinicalClassesToSequence;**

**rr1d** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddClinicalClassesToSequence** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.clinicalClasses** ***in*** **bop.sequenceOfClasses.classes;**

**// ..............................................................................**

***Requirement*** **rr1e**

**"Each Program Administrator or Nursing Staff Member shall be able to add**

**any sections in the system to any sequence of classes in the system";**

***Event*** **eAddSectionsToSequence** ***begin***

***occurrence*** ***is*** **deferred;**

**Section** **{}** **sections**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.sections;**

**SequenceOfClasses** **sequenceOfClasses**

**:** ***Guarantee*** **g2** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.sequencesOfClasses;**

***end*** **eAddSectionsToSequence;**

**rr1e** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddSectionsToSequence** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.sections** ***in*** **bop.sequenceOfClasses.addedSections;**

***end*** **system.R1;**

**system.R2** ***begin***

***Requirement*** **~r2**

**"Program Administrators and Nursing Staff Members shall be able to add**

**a new cohort to the system identified by start month and year"**

**:** ***concretisation*** ***is*** **{rr2a,** **rr2b};**

**// ..............................................................................**

***Requirement*** **rr2a**

**"Each Program Administrator or Nursing Staff Member shall be able to add**

**new cohorts to the system";**

***Event*** **eAddCohorts** ***begin***

***occurrence*** ***is*** **deferred;**

**Cohort** **{}** **cohorts;**

***end*** **eAddCohorts;**

**rr2a** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddCohorts** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.cohorts** ***in*** **system.cohorts;**

**// ..............................................................................**

***Requirement*** **rr2b**

**"Cohorts shall be identifiable by start year, start month and program of study"**

***is*** ***for all*** **c1,** **c2** ***of*** **system.cohorts** ***such that*** **c1** **<>** **c2**

***ensure*** **c1.startMonth** **<>** **c2.startMonth**

***or*** **c1.programOfStudy** **<>** **c2.programOfStudy;**

***end*** **system.R2;**

**system.R3** ***begin***

***Requirement*** **~r3**

**"Program Administrators and Nursing Staff Members shall be able to add**

**new classes for the nursing department into the system"**

**:** ***concretisation*** ***is*** **{rr3a,** **rr3b};**

**// ..............................................................................**

***Requirement*** **rr3a**

**"Each Program Administrator or Nursing Staff Member shall be able to add**

**new classes into the system";**

***Event*** **eAddClasses** ***begin***

***occurrence*** ***is*** **deferred;**

**°Class** **{}** **classes;**

***end*** **eAddClasses;**

**rr3a** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddClasses** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.classes** ***in*** **system.classes;**

**// ..............................................................................**

***Requirement*** **rr3b**

**"Each Program Administrator or Nursing Staff Member shall be able to add**

**classes in the system to the nursing department";**

***Event*** **eAddClassesToNursingDepartment** ***begin***

***occurrence*** ***is*** **deferred;**

**°Class** **{}** **classes**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.classes;**

***end*** **eAddClassesToNursingDepartment;**

**rr3b** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddClassesToNursingDepartment** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.classes** ***in*** **system.nursingDepartment.classes;**

***end*** **system.R3;**

**system.R4** ***begin***

***Requirement*** **~r4**

**"Program Administrators/Nursing Staff Members shall be able to create**

**a new Program of Study"**

**:** ***concretisation*** ***is*** **rr4;**

***Requirement*** **rr4**

**"Each Program Administrator or Nursing Staff Member shall be able to**

**create new Programs of Study";**

***Event*** **eNewProgramsOfStudy** ***begin***

***occurrence*** ***is*** **deferred;**

**ProgramOfStudy** **{}** **programs;**

***end*** **eNewProgramOfStudy;**

**rr4** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eNewProgramsOfStudy** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.programs** ***in*** **system.programs;**

***end*** **system.R4;**

**system.R5** ***begin***

***Requirement*** **~r5**

**"Program Administrators and Nursing Staff Members shall have the ability**

**to specify which classes are required for a Program of Study"**

**:** ***concretisation*** ***is*** **rr5;**

***Requirement*** **rr5** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the ability**

**to specify which classes in the system are required for any Program of**

**Study in the system";**

***Event*** **eChangeClassesOfAProgramOfStudy** ***begin***

***occurrence*** ***is*** **deferred;**

**°Class** **{}** **classes**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.classes;**

**ProgramOfStudy** **program**

**:** ***Guarantee*** **g2** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.programs;**

***end*** **eChangeClassesOfAProgramOfStudy;**

**rr5** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeClassesOfAProgramOfStudy** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.program.classes** ***becomes*** **bop.classes;**

***end*** **system.R5;**

**system.R6** ***begin***

***Requirement*** **~r6**

**"The system shall be able to display a report of needed classes for a**

**given quarter for all cohorts of all programs for**

**Program Administrators/Nursing Staff Members planning purposes"**

**:** ***concretisation*** ***is*** **rr6;**

***Requirement*** **rr6** ***is***

**"The system shall be able to display a report containing, for a**

**given quarter, the clinical classes required of each cohort in the**

**system that follows a program of study of the Nursing Department";**

***Event*** **@eRequestOfClassesNeededByNursingCohortsForQuarter** ***begin***

***occurrence*** ***is*** **deferred;**

**Quarter** **quarter;**

***end*** **eRequest;**

**Information**

**infoOnClassesNeededByCohortForQuarter** **(Cohort** **cohort,** **Quarter** **quarter)**

***is*** **deferred;**

**rr6** ***is***

***after*** **eRequestOfClassesNeededByNursingCohortsForQuarter** ***within*** **shortDelay**

***achieve*** **eReport** ***such that*** **contents** **=** **{*for all*** **x** ***of*** **system.nursingCohorts** **:**

**infoOnClassesNeededByCohortForQuarter** **(x,** **bop.quarter)};**

***end*** **system.R6;**

**system.R7** ***begin***

***Requirement*** **~r7**

**"Program Administrators and Nursing Staff Members shall be able to add a**

**new clinical site into the system"**

**:** ***concretisation*** ***is*** **rr7;**

***Requirement*** **rr7** ***is***

**"Each Program Administrator or Nursing Staff Member shall be able to**

**add new clinical sites into the system";**

***Event*** **eAddClinicalSite** ***begin***

***occurrence*** ***is*** **deferred;**

**ClinicalSite** **site;**

***end*** **eAddClinicalSite;**

**rr7** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddClinicalSite** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.site** ***in*** **system.clinicalSites;**

***end*** **system.R7;**

**system.R8** ***begin***

***Requirement*** **~r8**

**"Program Administrators and Nursing Staff Members shall be able to add a new**

**clinical lab section for an existing clinical class into the System"**

**:** ***concretisation*** ***is*** **{rr8a,** **rr8b};**

**// ..............................................................................**

***Requirement*** **rr8a** ***is***

**"Each Program Administrator or Nursing Staff Member shall be able**

**to add new clinical lab sections to the system";**

***Event*** **eAddClinicalLabSection** ***begin***

***occurrence*** ***is*** **deferred,**

**ClinicalLabSection** **{}** **clinicalLabSections;**

***end*** **eAddClinicalLabSection;**

**rr8a** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddClinicalLabSection** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.clinicalLabSections** ***in*** **system.clinicalLabSections;**

**// ..............................................................................**

***Requirement*** **rr8b** ***is***

**"Each Program Administrator or Nursing Staff Member shall be able**

**to add any clinical lab sections in the system to any clinical class**

**in the system"**

***Event*** **eAddClinicalLabSectionToClinicalClass** ***begin***

***occurrence*** ***is*** **deferred,**

**ClinicalLabSection** **{}** **clinicalLabSections**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalLabSections;**

**ClinicalClass** **clinicalClass**

**:** ***Guarantee*** **g2** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalClasses;**

***end*** **eAddClinicalLabSectionToClinicalClass;**

**rr8b** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddClinicalLabSectionToClinicalClass** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.clinicalLabSections** ***in*** **bop.clinicalClass.sections;**

***end*** **system.R8;**

**system.R9** ***begin***

***Requirement*** **~r9**

**"Program Administrators and Nursing Staff Members shall be able to add**

**a student who has registered for a clinical class to a clinical lab**

**section for that class"**

**:** ***concretisation*** ***is*** **rr9;**

***Requirement*** **rr9** ***is***

**"Each Program Administrator or Nursing Staff Member shall be able**

**to add students registered for a clinical class in the system to**

**any clinical lab section in the system for that class";**

***Event*** **eAddStudentToClinicalLabSection** ***begin***

***occurrence*** ***is*** **deferred,**

**Student** **student**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.students;**

**ClinicalLabSection** **clinicalLabSection**

**:** ***Guarantee*** **g2** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.sections;**

***Guarantee*** **g3** ***is***

***when*** ***occurrence***

***for some*** **x** ***in*** **system.clinicalclasses**

***ensure*** **student** ***in*** **x.students** ***and*** **clinicalLabSection** ***in*** **x.sections;**

***end*** **eAddStudentToClinicalLabSection;**

**rr9** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddStudentToClinicalLabSection** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.student** ***in*** **bop.clinicalLabSection.students;**

***end*** **system.R9;**

**system.R10** ***begin***

***Requirement*** **~r10**

**"The system shall allow a Program Administrator or Nursing staff member**

**to remove a student from a clinical lab section"**

**:** ***concretisation*** ***is*** **rr10;**

***Requirement*** **rr10** ***is***

**"Each Program Administrator or Nursing Staff Member shall be able to**

**remove any student from any clinical lab section in the system";**

***Event*** **eRemoveStudentFromClinicalLabSection** ***begin***

***occurrence*** ***is*** **deferred,**

**Student** **student;**

**ClinicalLabSection** **clinicalLabSection**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalLabSections;**

***end*** **eRemoveStudentFromClinicalLabSection;**

**rr10** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eRemoveStudentFromClinicalLabSection** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** ***not*** **bop.student** ***in*** **bop.clinicalLabSection.students;**

***end*** **system.R10;**

**system.R11** ***begin***

***Requirement*** **~r11**

**"The system shall allow a Program Administrator/Nursing Staff Member to move**

**a student from one clinical lab section to another clinical lab section**

**corresponding to the same clinical class"**

**:** ***concretisation*** ***is*** **rr11;**

***Requirement*** **rr11** ***is***

**"Each Program Administrator or Nursing Staff Member shall be able to move**

**any student in any clinical lab section to any another clinical lab**

**section corresponding to the same clinical class";**

***Event*** **@eMoveStudentToAnotherClinicalLabSection** ***begin***

***occurrence*** ***is*** **deferred,**

**Student** **student**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.students;**

**ClinicalLabSection** **clinicalLabSection**

**:** ***Guarantee*** **g2** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalLabSections;**

**ClinicalLabSection** **otherClinicalLabSection**

**:** ***Guarantee*** **g3** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalLabSections;**

***Guarantee*** **g4** ***is***

***when*** ***occurrence***

***ensure*** **student** ***in*** **clinicalLabSection.students;**

***Guarantee*** **g5** ***is***

***when*** ***occurrence***

***ensure*** **clinicalLabSection.class** **=** **otherClinicalLabSection.class;**

***end*** **eMoveStudentToAnotherClinicalLabSection;**

**rr11** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eMoveStudentToAnotherClinicalLabSection** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** ***not*** **bop.student** ***in*** **bop.clinicalLabSection.** **students**

***and*** **bop.student** ***in*** **bop.otherClinicalLabSection.students;**

***end*** **system.R11;**

**system.R12** ***begin***

***Requirement*** **~r12**

**"Program Administrators/Nursing Staff Members shall be able to cancel**

**a clinical lab section only if there are no students registered for that**

**clinical lab section"**

**:** ***concretisation*** ***is*** **rr12;**

***Requirement*** **rr12** ***is***

**"Each Program Administrator or Nursing Staff Member shall be able to cancel**

**any clinical lab section in the system that has no registered students";**

***Event*** **@eCancelClinicalLabSection** ***begin***

***occurrence*** ***is*** **deferred,**

**ClinicalLabSection** **clinicalLabSection;**

***Guarantee*** **g1** ***is***

***when*** ***occurrence***

***ensure*** **clinicalLabSection** ***in*** **system.clinicalLabSections;**

***Guarantee*** **g2** ***is***

***when*** ***occurrence***

***ensure*** **clinicalLabSection.students** **=** **{};**

***end*** **eCancelClinicalLabSection;**

**rr12** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eCancelClinicalLabSection** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** ***not*** **bop.clinicalLabSection** ***in*** **system.clinicalLabSections;**

***end*** **system.R12;**

**system.R13** ***begin***

***Requirement*** **~r13**

**"A Program Administrator/Nursing Staff Member shall be able to add a new**

**nursing student to the system"**

**:** ***concretisation*** ***is*** **rr13;**

***Requirement*** **rr13** ***is***

**"Each Program Administrator or Nursing Staff Member shall be able to add**

**a new nursing student to the system";**

***Event*** **@eAddNewStudent** ***begin***

***occurrence*** ***is*** **deferred,**

**Student** **student;**

***end*** **eAddNewStudent;**

**rr13** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eAddNewStudent** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.student** ***in*** **system.nursingStudents;**

***end*** **system.R13;**

**system.R14** ***begin***

***Requirement*** **~r14**

**"A staff member shall have the ability to manage the progress of a part**

**time student, which includes modifying their sequence of classes and**

**timeline of classes"**

***begin***

***concretisation*** ***is*** **deferred;**

***Guard*** **!g14** ***is*** ***ensure*** **rr14** ***in*** ***concretisation*;**

***end*** **r21;**

***Requirement*** **rr14**

**"Each Nursing Staff Member shall be able to modify the sequence of classes**

**of any part time student in the system";**

***Event*** **@eManageStudentSequenceOfClasses** ***begin***

***occurrence*** ***is*** **deferred,**

**Student** **student** ***begin***

***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.students;**

***Guarantee*** **g2** ***is*** ***when*** ***occurrence*** ***ensure*** **me.partTime;**

***end*** **student;**

**SequenceOfClasses** **sequenceOfClasses**

**:** ***Guarantee*** **g3** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.sequencesOfClasses;**

***end*** **eManageStudentSequenceOfClasses;**

**rr14** ***is***

***for all*** **x** ***of*** **NSM**

***after*** **eManageStudentSequenceOfClasses** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.student.sequenceOfClasses** ***becomes*** **bop.sequenceOfClasses;**

***end*** **system.R14;**

**system.R15** ***begin***

***Requirement*** **~r15**

**"The system shall be able to display a printable summary for individual**

**cohorts, which will include the students enlisted, the Program of study,**

**sequence of classes, cohort progress through the program, and timeline**

**of completion"**

**:** ***concretisation*** ***is*** **rr15;**

***Requirement*** **~rr15**

**"The system shall be able to display a printable summary for any cohort**

**in the system"**

**"That summary shall include its enlisted students"**

**"That summary shall include its program of study"**

**"That summary shall include its sequence of classes"**

**"That summary shall include its progress through the program of study"**

**"That summary shall include its timeline of completion";**

***Event*** **@eRequestForCohortSummary** ***begin***

***occurrence*** ***is*** **deferred;**

**Cohort** **cohort**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.cohorts;**

***end*** **eRequestForCohortSummary;**

**Information** **infoOnStudentsEnlistedInCohort** **(Cohort** **cohort)** ***is*** **deferred;**

**Information** **infoOnProgramOfStudyOfCohort** **(Cohort** **cohort)** ***is*** **deferred;**

**Information** **infoOnSequenceOfClassesOfCohort** **(Cohort** **cohort)** ***is*** **deferred;**

**Information** **infoOnProgressOfCohort** **(Cohort** **cohort)** ***is*** **deferred;**

**Information** **infoOnTimelineOfCompletionOfCohort** **(Cohort** **cohort)** ***is*** **deferred;**

**rr15** ***is***

***after*** **eRequestForCohortSummary** ***within*** **shortDelay**

***achieve*** **eReport** ***such that***

**infoOnStudentsEnlistedInCohort** **(bop.cohort)** ***in*** **contents**

***and*** **infoOnProgramOfStudyOfCohort** **(bop.cohort)** ***in*** **contents**

***and*** **infoOnSequenceOfClassesOfCohort** **(bop.cohort)** ***in*** **contents**

***and*** **infoOnProgressOfCohort** **(bop.cohort)** ***in*** **contents**

***and*** **infoOnTimelineOfCompletionOfCohort** **(bop.cohort)** ***in*** **contents;**

***end*** **system.R15;**

**system.R16** ***begin***

***Requirement*** **~r16**

**"The system shall be able to display a printable summary for individual**

**clinical sites which will include information on labs being held at**

**that site for the given quarter (Clinical site, general information on**

**labs held at that location, dates and times of all labs held there)"**

**:** ***concretisation*** ***is*** **rr16;**

***Requirement*** **rr16**

**"The system shall be able to display a printable summary for any**

**clinical site in the system"**

**"That summary shall include information on each lab being held at**

**that site for each quarter";** **// Whatever that means**

***Event*** **@eRequestForClinicalSiteSummary** ***begin***

***occurrence*** ***is*** **deferred;**

**ClinicalSite** **clinicalSite;**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalSites;**

***end*** **eRequestForClinicalSiteSummary;**

**Information** **infoOnLabsAtClinicalSite** **(ClinicalSite** **clinicalSite,** **Quarter** **quarter)**

***is*** **deferred;**

**rr16** ***is***

***after*** **eRequestForClinicalSiteSummary** ***within*** **shortDelay**

***for all*** **quarter** ***of*** **Quarter**

***achieve*** **eReport** ***such that***

**infoOnLabsAtClinicalSite** **(bop.clinicalSite,** **quarter)** ***in*** **contents;**

***end*** **system.R16;**

**system.R17** ***begin***

***Requirement*** **~r17**

**"The system shall be able to display a printable summary for individual**

**clinical labs, which will include (but not be limited to) class name,**

**class number, lab section, listing of students enrolled, instructor,**

**day(s), time and location"**

**:** ***concretisation*** ***is*** **rr17;**

***Requirement*** **rr17**

**"The system shall be able to display a printable summary for any**

**clinical lab section in the system"**

**"That summary shall include class name"**

**"That summary shall include class ID"**

**"That summary shall include lab section"** **// Whatever that means**

**"That summary shall include a listing of students enrolled"**

**"That summary shall include information on the instructor"**

**"That summary shall include information on days(s) and time"**

**"That summary shall include information on location";**

***Event*** **@eRequestForClinicalLabSectionSummary** ***begin***

***occurrence*** ***is*** **deferred;**

**ClinicalLabSection** **clinicalLabSection**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalLabSections;**

***end*** **eRequestForClinicalLabSectionSummary;**

**Information** **infoOnClinicalLabSectionClassName**

**(ClinicalLabSection** **clinicalLabSection)** ***is*** **deferred;**

**Information** **infoOnClinicalLabSectionClassID**

**(ClinicalLabSection** **clinicalLabSection)** ***is*** **deferred;**

**Information** **infoOnClinicalLabSectionLabSection**

**(ClinicalLabSection** **clinicalLabSection)** ***is*** **deferred;**

**Information** **infoOnClinicalLabSectionStudents**

**(ClinicalLabSection** **clinicalLabSection)** ***is*** **deferred;**

**Information** **infoOnClinicalLabSectionInstructor**

**(ClinicalLabSection** **clinicalLabSection)** ***is*** **deferred;**

**Information** **infoOnClinicalLabSectionDaysAndTime**

**(ClinicalLabSection** **clinicalLabSection)** ***is*** **deferred;**

**Information** **infoOnClinicalLabSectionLocation**

**(ClinicalLabSection** **clinicalLabSection)** ***is*** **deferred;**

**rr17** ***is***

***after*** **eRequestForClinicalLabSectionSummary** ***within*** **shortDelay**

***achieve*** **eReport** ***such that***

**infoOnClinicalLabSectionClassName** **(bop.clinicalLabSection)** ***in*** **contents**

***and*** **infoOnClinicalLabSectionClassID** **(bop.clinicalLabSection)** ***in*** **contents**

***and*** **infoOnClinicalLabSectionLabSection** **(bop.clinicalLabSection)** ***in*** **contents**

***and*** **infoOnClinicalLabSectionStudents** **(bop.clinicalLabSection)** ***in*** **contents**

***and*** **infoOnClinicalLabSectionInstructor** **(bop.clinicalLabSection)** ***in*** **contents**

***and*** **infoOnClinicalLabSectionDaysAndTime** **(bop.clinicalLabSection)** ***in*** **contents**

***and*** **infoOnClinicalLabSectionLocation** **(bop.clinicalLabSection)** ***in*** **contents;**

***end*** **system.R17;**

**system.R18** ***begin***

***Requirement*** **~r18**

**"The system shall be able to display a printable summary for individual**

**nursing students, which will include (but not be limited to) student name,**

**student ID, admission date, classes, credits, GPA, and the cohort that**

**the student is enrolled in"**

**:** ***concretisation*** ***is*** **rr18;**

***Requirement*** **rr18**

**"The system shall be able to display a printable summary for any**

**nursing student in the system"**

**"That summary shall include the name of the student"**

**"That summary shall include the Id of the student"**

**"That summary shall include the admission date of the student "**

**"That summary shall include the classes of the student"**

**"That summary shall include the credits of the student"**

**"That summary shall include the GPA of the student"**

**"That summary shall include the cohort of the student";**

***Event*** **@eRequestForNursingStudentSummary** ***begin***

***occurrence*** ***is*** **deferred;**

**Student** **student**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.nursingStudents;**

***end*** **eRequestForNursingStudentSummary;**

**Information** **infoOnStudentName** **(Student** **student)** ***is*** **deferred;**

**Information** **infoOnStudentId** **(Student** **student)** ***is*** **deferred;**

**Information** **infoOnStudentAdmissionDate** **(Student** **student)** ***is*** **deferred;**

**Information** **infoOnStudentClasses** **(Student** **student)** ***is*** **deferred;**

**Information** **infoOnStudentCredits** **(Student** **student)** ***is*** **deferred;**

**Information** **infoOnStudentGPA** **(Student** **student)** ***is*** **deferred;**

**Information** **infoOnStudentCohort** **(Student** **student)** ***is*** **deferred;**

**rr18** ***is***

***after*** **eRequestForNursingStudentSummary** ***within*** **shortDelay**

***achieve*** **eReport** ***such that***

**infoOnStudentName** **(bop.student)** ***in*** **contents**

***and*** **infoOnStudentId** **(bop.student)** ***in*** **contents**

***and*** **infoOnStudentAdmissionDate** **(bop.student)** ***in*** **contents**

***and*** **infoOnStudentClasses** **(bop.student)** ***in*** **contents**

***and*** **infoOnStudentCredits** **(bop.student)** ***in*** **contents**

***and*** **infoOnStudentGPA** **(bop.student)** ***in*** **contents**

***and*** **infoOnStudentCohort** **(bop.student)** ***in*** **contents;**

***end*** **system.R18;**

**system.R19** ***begin***

***Requirement*** **r19**

**"The system shall be able to display a printable summary of the system log";**

***Event*** **@eRequestForSystemLogSummary** ***is*** **deferred;**

**Information** **infoOnSystemLog** ***is*** **deferred;** **// Whatever that means**

**r19** ***is***

***after*** **eRequestForSystemLogSummary** ***within*** **shortDelay**

***achieve*** **eReport** ***such that*** **contents** **=** **infoOnSystemLog;**

***end*** **system.R19;**

**system.R20** ***begin***

***Requirement*** **~r20**

**"The system will notify affected parties when changes occur affecting cohorts,**

**including but not limited to changes to the sequence for a cohort's program**

**of study and changes to a given week's schedule (lab cancelled this week due**

**to instructor illness)"**

***begin***

***concretisation*** ***is*** **deferred;**

***Guard*** **!g21** ***is*** ***ensure*** **{rr20a,** **rr20b}** ***in*** ***concretisation*;**

***end*** **r21;**

**// ..............................................................................**

***Requirement*** **rr20a**

**"The system shall notify all persons in the system affected by any change in**

**the sequence of classes for any cohort in the system"** ***is***

***for all*** **x** ***of*** **system.cohorts**

***when*** **x.preferredSequence.sections** ***changes*** ***within*** **reasonableDelay**

***achieve*** **x.eNotification;**

**// ..............................................................................**

***Requirement*** **rr20b**

**"The system shall notify all persons in the system affected by any change in**

**the schedule for any cohortin the system"** ***is***

***for all*** **x** ***of*** **system.cohorts**

***when*** ***orAll*** **(x.preferredSequence.sections.period** ***changes*)** ***within*** **reasonableDelay**

***achieve*** **x.eNotification;**

***end*** **system.R20;**

**system.R21** ***begin***

***Requirement*** **~r21**

**"The system will notify affected parties when changes occur affecting**

**specific students, including but not limited to changing a student's**

**status from full time to part time, and moving a student to a different**

**clinical section"**

***begin***

***concretisation*** ***is*** **deferred;**

***Guard*** **!g21** ***is*** ***ensure*** **{rr21a,** **rr21b}** ***in*** ***concretisation*;**

***end*** **r21;**

**// ..............................................................................**

***Requirement*** **rr21a**

**"The system shall notify all persons affected by any change in**

**the full time / part time status of any student in the system"**

***is*** ***for all*** **x** ***of*** **system.students**

***when*** **x.partTime** ***changes*** ***within*** **reasonableDelay**

***achieve*** **x.eNotification;**

**// ..............................................................................**

***Requirement*** **rr21b**

**"The system shall notify all persons affected by the moving of any student**

**in the system to a different clinical section in the system"** ***is***

***is*** ***for all*** **x** ***of*** **system.students**

***when*** **x.clinicalLabSection** ***changes*** ***within*** **reasonableDelay**

***achieve*** **x.eNotification;**

***end*** **system.R21;**

**system.R22** ***begin***

***Requirement*** **~r22**

**"Program Administrators/Nursing Staff Members shall have the ability to**

**modify information relating to cohorts, including cohort identifier,**

**program of study, preferred sequence of classes and quarters that a cohort**

**will be taking specific classes"**

***begin***

***concretisation*** ***is*** **deferred;**

***Guard*** **!g22** ***is*** ***ensure*** **{rr22a,** **rr22b,** **rr22c,** **rr22d}** ***in*** ***concretisation*;**

***end*** **r22;**

**// ..............................................................................**

***Requirement*** **rr22a**

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the identifier of any cohort in the system";**

***Event*** **eChangeCohortIdentifier** ***begin***

**Cohort** **cohort**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.cohorts;**

**Id** **newId;**

***end*** **eChangeCohortIdentifier;**

**rr22a** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeCohortIdentifier** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.cohort.id** ***becomes*** **bop.newId;**

**// ..............................................................................**

***Requirement*** **rr22b**

**"Each Program Administrator or Nursing Staff Member shall have the ability to**

**modify the program of study of any cohort in the system";**

***Event*** **eChangeCohortProgramOfStudy** ***begin***

**Cohort** **cohort**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.cohorts;**

**ProgramOfStudy** **newProgramOfStudy**

**:** ***Guarantee*** **g2** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.programs;**

***end*** **eChangeCohortProgramOfStudy;**

**rr22b** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeCohortProgramOfStudy** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.cohort.programOfStudy** ***becomes*** **bop.newProgramOfStudy;**

**// ..............................................................................**

***Requirement*** **rr22c**

**"Each Program Administrator or Nursing Staff Member shall have the ability to**

**modify the preferred sequence of classes of any cohort in the system";**

***Event*** **eChangeCohortPreferredSequence** ***begin***

**Cohort** **cohort**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.cohorts;**

**SequenceOfClasses** **newPreferredSequence;**

***end*** **eChangeCohortPreferredSequence;**

**rr22c** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeCohortPreferredSequence** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.cohort.preferredSequence** ***becomes*** **bop.newPreferredSequence;**

**// ..............................................................................**

***Requirement*** **rr22d**

**"Each Program Administrator or Nursing Staff Member shall have the ability to**

**modify the quarters that any cohort in the system will be taking specific**

**classes";**

***Event*** **eChangeCohortClassesQuarters** ***begin***

**Cohort** **cohort**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.cohorts;**

**SequenceOfClasses** **newSequenceOfClasses;**

***end*** **eChangeCohortClassesQuarters;**

**rr22d** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeCohortClassesQuarters** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.cohort.preferredSequence** ***becomes*** **bop.newPreferredSequence;**

***end*** **system.R22;**

**system.R23** ***begin***

***Requirement*** **~r23**

**"Program Administrators/Nursing Staff Members shall have the ability**

**to modify information relating to a Program of Study within**

**the Nursing Department, including the Program of study name, and**

**required classes for that Program of Study"**

***begin***

***concretisation*** ***is*** **deferred;**

***Guard*** **!g23** ***is*** ***ensure*** **{rr23a,** **rr23b}** ***in*** ***concretisation*;**

***end*** **r23;**

**// ..............................................................................**

***Requirement*** **rr23a** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the name of any Program of study within the**

**Nursing Department";**

***Event*** **eChangeProgramOfStudyName** ***begin***

**ProgramOfStudy** **programOfStudy**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.nursingPrograms;**

**Name** **newName;**

***end*** **eChangeProgramOfStudyName;**

**rr23a** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeProgramOfStudyName** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.programOfStudy.name** ***becomes*** **bop.newName;**

**// ..............................................................................**

***Requirement*** **rr23b** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the classes required for any Program of study**

**within the Nursing Department";**

***Event*** **eChangeProgramOfStudyRequiredClasses** ***begin***

**ProgramOfStudy** **programOfStudy**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.nursingPrograms;**

**°Class** **{}** **newRequiredClasses**

**:** ***Guarantee*** **g2** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.classes;**

***end*** **eChangeProgramOfStudyRequiredClasses;**

**rr23b** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeProgramOfStudyRequiredClasses** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.programOfStudy.requiredClasses** ***becomes*** **bop.newRequiredClasses;**

***end*** **system.R23;**

**system.R24** ***begin***

***Requirement*** **~r24**

**"Program Administrators/Nursing Staff Members shall have the ability**

**to modify information relating to a Clinical Site, including the clinical**

**site name, site contact person, contact information, and address"**

***begin***

***concretisation*** ***is*** **deferred;**

***Guard*** **!g24** ***is*** ***ensure*** **{rr24a,** **rr24b,** **rr24c,** **rr24d}** ***in*** ***concretisation*;**

***end*** **r24;**

**// ..............................................................................**

***Requirement*** **rr24a** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the name of any clinical site in the system";**

***Event*** **eChangeClinicalSiteName** ***begin***

**ClinicalSite** **clinicalSite**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalSites;**

**Name** **newName;**

***end*** **eChangeClinicalSiteName;**

**rr24a** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeClinicalSiteName** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.clinicalSite.name** ***becomes*** **bop.newName;**

**// ..............................................................................**

***Requirement*** **rr24b** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the contact person of any clinical site in the system";**

***Event*** **eChangeClinicalSiteContactPerson** ***begin***

**ClinicalSite** **clinicalSite**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalSites;**

**Person** **newContactPerson;**

***end*** **eChangeClinicalSiteContactPerson;**

**rr24b** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeClinicalSiteContactPerson** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.clinicalSite.contactPerson** ***becomes*** **bop.newContactPerson;**

**// ..............................................................................**

***Requirement*** **rr24c** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the contact information of any clinical site**

**in the system";**

***Event*** **eChangeClinicalSiteContactInformation** ***begin***

**ClinicalSite** **clinicalSite**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalSites;**

**Information** **newContactInformation;**

***end*** **eChangeClinicalSiteContactInformation;**

**rr24c** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeClinicalSiteContactInformation** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.clinicalSite.contactInformation** ***becomes*** **bop.newContactInformation;**

**// ..............................................................................**

***Requirement*** **rr24d** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the address of any clinical site in the system";**

***Event*** **eChangeClinicalSiteAddress** ***begin***

**ClinicalSite** **clinicalSite**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalSites;**

**Address** **newAddress;**

***end*** **eChangeClinicalSiteAddress;**

**rr24d** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeClinicalSiteAddress** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.clinicalSite.address** ***becomes*** **bop.newAddress;**

***end*** **system.R24;**

**system.R25** ***begin***

***Requirement*** **~r25**

**"Program Administrators/Nursing Staff Members shall have the ability**

**to modify information relating to a Clinical Lab Section, including**

**the clinical site name, the department/section for the lab, the class**

**instructor, day and time of lab, and contact information"**

***begin***

***concretisation*** ***is*** **deferred;**

***Guard*** **!g25** ***is*** ***ensure*** **{rr25a,** **rr25b,** **rr25c,** **rr25d,** **rr25e}** ***in*** ***concretisation*;**

***end*** **r25;**

**// ..............................................................................**

***Requirement*** **rr25a** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the clinical site name of any Clinical Lab Section**

**in the system";**

***Event*** **eChangeClinicalLabSectionSite** ***begin***

**ClinicalLabSection** **clinicalLabSection**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalLabSections;**

**Name** **newName;**

***end*** **eChangeClinicalLabSectionSite;**

**rr25a** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeClinicalLabSectionSite** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.clinicalLabSection.site.name** ***becomes*** **bop.newName;**

**// ..............................................................................**

***Requirement*** **rr25b** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the department of any Clinical Lab Section**

**in the system";**

***Event*** **eChangeClinicalLabSectionDepartment** ***begin***

**ClinicalLabSection** **clinicalLabSection**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalLabSections;**

**Department** **newDepartment;**

***end*** **eChangeClinicalLabSectionDepartment;**

**rr25b** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeClinicalLabSectionDepartment** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.clinicalLabSection.department** ***becomes*** **bop.newDepartment;**

**// ..............................................................................**

***Requirement*** **rr25c** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the class instructor of any Clinical Lab Section**

**in the system";**

***Event*** **eChangeClinicalLabSectionInstructor** ***begin***

**ClinicalLabSection** **clinicalLabSection**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalLabSections;**

**Instructor** **newInstructor;**

***end*** **eChangeClinicalLabSectionInstructor;**

**rr25c** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeClinicalLabSectionInstructor** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.clinicalLabSection.instructor** ***becomes*** **bop.newInstructor;**

**// ..............................................................................**

***Requirement*** **rr25d** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the day and time of any Clinical Lab Section**

**in the system";**

***Event*** **eChangeClinicalLabSectionDate** ***begin***

**ClinicalLabSection** **clinicalLabSection**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalLabSections;**

**Date** **newDate;**

***end*** **eChangeClinicalLabSectionDate;**

**rr25d** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeClinicalLabSectionDate** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.clinicalLabSection.beginning** ***becomes*** **bop.newDate;**

**// ..............................................................................**

***Requirement*** **rr25e** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the contact information of any Clinical Lab Section**

**in the system";**

***Event*** **eChangeClinicalLabSectionContactInformation** ***begin***

**ClinicalLabSection** **clinicalLabSection**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.clinicalLabSections;**

**Information** **newContactInformation;**

***end*** **eChangeClinicalLabSectionContactInformation;**

**rr25e** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeClinicalLabSectionContactInformation** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.clinicalLabSection.contactInformation** ***becomes*** **bop.newContactInformation;**

***end*** **system.R25;**

**system.R26** ***begin***

***Requirement*** **~r26**

**"Program Administrators/Nursing Staff Members shall have the ability**

**to modify information relating to a Nursing Student, including student ID,**

**student name, phone number, e-mail, status (full time or part time),**

**and program of study"**

***begin***

***concretisation*** ***is*** **deferred;**

***Guard*** **!g26** ***is***

***ensure*** **{rr26a,** **rr26b,** **rr26c,** **rr26d,** **rr26e,** **rr26f}** ***in*** ***concretisation*;**

***end*** **r26;**

**// ..............................................................................**

***Requirement*** **rr26a** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the name of any Nursing Student in the system";**

***Event*** **eChangeNursingStudentName** ***begin***

**Student** **student**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.nursingStudents;**

**Name** **newName;**

***end*** **eChangeNursingStudentName;**

**rr26a** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeNursingStudentName** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.student.name** ***becomes*** **bop.newName;**

**// ..............................................................................**

***Requirement*** **rr26b** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the ID of any Nursing Student in the system";**

***Event*** **eChangeNursingStudentId** ***begin***

**Student** **student**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.nursingStudents;**

**Id** **newId;**

***end*** **eChangeNursingStudentId;**

**rr26b** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeNursingStudentId** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.student.id** ***becomes*** **bop.newId;**

**// ..............................................................................**

***Requirement*** **rr26c** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the phone number of any Nursing Student in the system";**

***Event*** **eChangeNursingStudentPhoneNumber** ***begin***

**Student** **student**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.nursingStudents;**

**PhoneNumber** **newPhoneNumber;**

***end*** **eChangeNursingStudentPhoneNumber;**

**rr26c** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeNursingStudentPhoneNumber** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.student.phoneNumber** ***becomes*** **bop.newPhoneNumber;**

**// ..............................................................................**

***Requirement*** **rr26d** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the e-mail of any Nursing Student in the system";**

***Event*** **eChangeNursingStudentEMail** ***begin***

**Student** **student**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.nursingStudents;**

**EMail** **newEMail;**

***end*** **eChangeNursingStudentEMail;**

**rr26d** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeNursingStudentEMail** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.student.eMail** ***becomes*** **bop.newEMail;**

**// ..............................................................................**

***Requirement*** **rr26e** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the status of any Nursing Student in the system";**

***Event*** **eChangeNursingStudentStatus** ***begin***

**Student** **student**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.nursingStudents;**

***Boolean*** **newStatus;**

***end*** **eChangeNursingStudentStatus;**

**rr26e** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeNursingStudentStatus** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve*** **bop.student.partTime** ***becomes*** **bop.newStatus;**

**// ..............................................................................**

***Requirement*** **rr26f** ***is***

**"Each Program Administrator or Nursing Staff Member shall have the**

**ability to modify the program of study of any Nursing Student**

**in the system";**

***Event*** **eChangeNursingStudentProgramOfStudy** ***begin***

**Student** **student**

**:** ***Guarantee*** **g1** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.nursingStudents;**

**ProgramOfStudy** **newProgramOfStudy**

**:** ***Guarantee*** **g2** ***is*** ***when*** ***occurrence*** ***ensure*** **me** ***in*** **system.programs;**

***end*** **eChangeNursingStudentProgramOfStudy;**

**rr26f** ***is***

***for all*** **x** ***of*** **PA** ***union*** **NSM**

***after*** **eChangeNursingStudentProgramOfStudy** ***within*** **shortDelay**

***assert*** **x** ***can*** ***achieve***

**bop.student.programOfStudy** ***becomes*** **bop.newProgramOfStudy;**

***end*** **system.R26;**