Design Sequence Diagram of Iteration1 Simulation DataIOHandler RandomObjectGenerator ManagementSystem Advisor Student readSimulationParameters(String path) new RandomObjectGenerator(int yearlyStudentCount) [reCreationLoopCount times] simulationLoop() resetCourseQuotas() updateCurrentSemester(int currentSemester) courseRegisteration() getAddebleCourses(Student student, randomObjectGenerator) submitCourseList(Student student, Courses addableCourses) advisorCheck(Course validCourses,Student student) addSemester(new Semester(Course validCourses)) generateExamScores() writeStudentsData(ArrayList<Student> students,String path) simulationLoop() writeStudentsData(ArrayList<Student> students,String path) Simulation class starts the simulation process with the given parameters. DatalOHandler is responsible 1 for all IO operations such as course and student data. We randomize the student generation cycle and course selection processes. ManagementSystem and advisor checks if a student can take a course or not. They look for if a student has enough GPA or completed the prerequisite courses. They also check if there is a collision between courses that student attempted to register.