CRC Cards

Model

User(abstract)	
Base class for all users (stores login info)	- Student - Lecturer - Admin

Student	
Store student information (id, programme, year) , access timetable	- Programme - StudentGroup - SubGroup - Timetable

Lecturer	
Store lecturer info(modules), and access timetable	- Module - TimetableSlot - Timetable

Admin	
Administer timetables, manage rooms and modules	- Timetable - Room - Module

Programme	
Store programme name and structure (module per semester)	- Module - StudentGroup

Module	
Store module code, name, hours, track assigned lectures	- Lecturer - TimetableSlot - Programme

Room	
Store room number, type (lecture/ lab/ tutorial) and capacity	- TimetableSlot

StudentGroup	
Represents students in a year of a programme, assign subgroups	- Student - Subgroup - TimetableSlot

Subgroup	
Smaller student groups for labs/ tutorials	- Student - StudentGroup

TimetableSlot	
Represent a single scheduled session (module, room, time, group)	- Module - Room - StudentGroup - Subgroup - Lecturer

Timetable	
Hold all TimetableSlots	- TimetableSlot - StudentGroup - Subgroup - Lecturer

	- Room

Controller

AdminController	
Create,edit and delete timetable slots Create/delete modules	- TimetableRepository - Module Repository - RoomRepository - LectureRepository - Timetable - TimetableSlot - Module - Room - Lecturer - StudentGroup - SubGroup - SessionType
Main	
Starts application Stores ConsoleUI Displays menu	- ConsoleUI
TimetableController	
Retrieves timetable for User Add/delete and update timetable slots Rewrite timetable data back to CSV	- TimetableRepository - Timetable - TimetableSlot - User - Student - Admin - Lecturer - Module - SessionType
UserController	
Validate users from CSV files while logging in	- CSVUtil - User - Student - Lecturer - Admin

Util

CSVUtil	
Handles the basic reading and writing of CSV files Used by all repository classes to load and save their data.	- CSVTimetableRepository - CSVLecturerRepository - CSVRoomRepository - CSVUserRepository - CSVModuleRepository
WeeksPattern	
Parses week string into set of ints Checks if two week patterns are overlapping	- TimetableSlot - CSVTimetableRepository - TimetableRepository - TimetableController

View

AdminMenu	
Displays all admin options such as creating modules, rooms or timetable slots. Collects the admins input and controller performs the action	- ConsoleUI - AdminController - TimetableController - Module - Room - StudentGroup
ConsoleUI	
Shows the main menu, handles the starting point of the user interface. Directs users to their menu based on the role they logged in as	- UserController - AdminMenu - StudentMenu - LecturerMenu - TimetableController - AdminController
LecturerMenu	
Displays the lecturer menu with the option to view their timetable Collects the lecturers input and controller gets their timetable info	- ConsoleUI - UserController - TimetableController - TimetableSlot

	- Module

StudentMenu	
Displays the student menu with the option to view their timetable Collects the students input and controller gets their timetable info specific to their group	- ConsoleUI - UserController - TimetableController - Student - StudentGroup - Programme - TimetableSlot

Repository

CSVLecturerRepository	
Reads lecturer data from CSV file Finds lecturer by ID	- Lecturer - LecturerRepository - CSVUtil

CSVModuleRepository	
Saves and deletes module data to/from CSV Finds module by code	- Module - ModuleRepository - CSVUtil

CSVRoomRepository	
Saves and deletes room data to/from CSV Finds room by room number	- Room - RoomRepository - CSVUtil

CSVTimetableRepository	
Loads all timetable slots from CSV file Saves and deletes timetable slots Builds TimetableSlot with room, lecture and module from timetable CSV row	- Timetable - CSVLecturerRepository - TimetableSlot - Room - Lecturer - Subgroup - Module - SessionType - CSVUtil

CSVUserRepository

Loads and manages users	- UserRepository
LecturerRepository	
Reads lecturer details from its CSV file and creates lecturer objects. Allows the system to quickly find a lecturer by their ID	- Lecturer - CSVUtil - Module
ModuleRepository	
Reads module details from its CSV file and creates module objects. Lets the system look up modules by code.	- Module - CSVUtil - Lecturer - Programme
RoomRepository	
Loads room details from its CSV file and creates room objects. Allows the system to find a room by number.	- CSVUtil - Room
TimetableRepository	
Reads all timetable slot data from CSV file and creates timetableSlot objects. Lets the system search for slots by lecturer, group, day or module	- Timetable - TimetableSlot - Module - Room - Lecturer - StudentGroup - SubGroup - WeeksPattern - CSVUtil
UserRepository	
Loads and manages users	- User - CSVUtil