

Project 4

- TODO

- CourseDBStructure **implements** CourseDBStructureInterface
 - + addElement: CourseDBElement): void
 - + get(CRN: int): CourseDBElement
 - + getTableSize(): int

- Tips

- hash code = CRN
- hash table = array of linked lists (chaining)
- coerce hashCode to String
- public CDS (int estimatedCourseAmount)
- CDS constructor for testing purposes
- $1 \leq \text{creditHours} \leq 4$

- CourseDBManager **implements** CourseDBManagerInterface
 - + add(id: String, CRN: int, credits: int, roomNum: String, instructor: String): void
 - + get(CRN: int): CourseDBElement
 - + readFile(input: File): void
 - + showAll(): ArrayList<String>

- Tips

- Use Alert to print out db elements
- input added to db through add method
- add() = CDS add()
- Perform data validation
- no bad data goes into db

- CourseDBElement

- courseID: String
- CRN: int
- numberOfCredits: int
- roomNumber: String
- instructorName: int

- + getCourseID(): String
- + getCRN(): int
- + getNumberOfCredits(): int
- + getRoomNumber(): int
- + getInstructorName(): String
- + setCourseID(ID: String): void
- + setCRN(CRN: int): void
- + setNumberOfCredits(credits: int): void
- + setRoomNumber(roomNum: int): void
- + setInstructorName(name: String): void

- Exceptions

- IOException

- thrown when input file can't be read
- thrown when trying to set CDE that doesn't exist

- Tips

- line starting with # is **VALID**