

Java Projects – [GitHub Repository Link](#)

- **Email application:** For creating email accounts for new hires

Specifications:

1. Generate email with following syntax `firstname.lastname@department.company.com`
2. Ask for the department
3. Generate random string for password
4. Have set methods where we change the password, set the mailbox capacity, and define an alternate email address
5. Have get methods to display name, email and mailbox capacity

- **Student database application:** To manage student enrolments and balance(tuition).

Specifications:

1. Ask the user how many new students will be added to the database
2. The user should be prompted to enter the name and year for each student
3. The student should have a 5-digit unique ID, with the first number being their grade level
4. A student can enrol in the following courses:
 - a. History 101, Mathematics 101, English 101, Chemistry 101, Computer Science 101
5. Each course costs \$600 to enrol
6. The student should be able to view their balance and pay the tuition
7. To see the status of the student, we should see their name, ID, courses enrolled, and balance

- **Bank application:** To handle new customer bank account requests.

1. Read a .csv file of names, social security numbers, account type, and initial deposit
2. Use a proper data structure to hold all these accounts
3. Both savings and checking accounts share the following properties:

Deposit()

Withdraw()

Transfer()

showInfo()

11 digit account number (generated with the following process: 1 or 2 depending on savings and checking, last two digits of SSN, unique 5 digit number, and random 3 digit number)

4. Savings account holders are given a safety deposit box, identified by a 3-digit number and accessed with a 4-digit code

5. Checking account holders are assigned a debit card with a 12-digit number and 4-digit pin
6. Both accounts will use an interface that determines the base interest rate

Savings accounts will use .25 points less than the base rate

Checking accounts will use 15% of the base rate

7. `showInfo()` method should reveal relevant account information as well as information specific to the checking account or savings account