



Merit Online Banking Group Project (Merit Banking Services)

Context:

Merit Financial Systems, a leading financial consulting business, plans to start a banking division, Merit Banking Services, to serve its thousands of customers. The decision was based on a marketing analysis that showed a pathway to increase revenues as proposed by business consultants. The customer base requires that the software services include a web presence for all banking transactions.

The high-level business requirements dictate that the initial offering will have the following:

Types of Accounts:

- a. Savings Account
- b. Checking Accounts
 - a. Personal Checkings Account
 - b. DBA - Checking Account
- d. Certificate of Deposit Account (CD)

IRA Accounts

- a. Rollover IRA
- b. Roth IRA
- c. Regular IRA

Restrictions:

1. Each account holder can have only one savings account.
2. Each account holder can have only one personal checking account
3. Each account holder can have multiple DBA checking accounts, but not more than 3 allowed per account holder.
4. Each account holder can have many Certificate of Deposit Accounts
5. Each account holder can have up to 3 IRA accounts, but only one of each type for an account holder

Transactions:

Deposit money into account

- a. Cash
- b. Checks
- c. Transfers
- d. ATM

Withdraw money from the account

- a. Cash
- b. Checks
- c. ATM

Close accounts

- a. Closing checking accounts can be done without restrictions
- b. When closing the checking account, the balance has to be transferred to the savings account only



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- c. When closing the IRA account, only 80% of the balance is transferred to the savings or checking account. 20% is taken away to IRS (provide a note to the user to this effect)
- d. When closing CDs balances are transferred to either savings or checking account
- e. A savings account can only be closed when the user does not want to have an account. Account records are deleted at this point.

Functions:

- a. Create an account with user information where the user can log in and log out
- b. Update an account with user information
- c. Delete an account
- d. Delete an account holder
- e. Display account information
- f. Display transaction information as required (all, checking, savings, IRAs, CDs)
- g. Generate exception messages for violation of restrictions
- h. Create an algorithm to suggest the optimal CD to choose from based on term length and associated interest rates (choose from a range of options you'll generate)

Framework Notes:

- Use Spring Data and Spring Boot (use a script to populate the data)
- Use JSP and HTML files for front end work
- Create a GitHub repository for the team (team lead owns this task), then others create a local repository and connect to GitHub repository
- Web-hosting is optional through Amazon Web Services (AWS, free version); local hosting is mandatory

Weekly deliverables:

- **Week 16 - Design:** Submit work breakdown structure, team member roles and contributions, wireframes, system architecture, and database schema
- **Week 17 - Prototype:** Submit deliverables coming out of the sprint and latest product build, along with team member contributions
- **Week 18: Refine/Troubleshoot:** Submit deliverables coming out of the sprint and latest product build, along with team member contributions
- **Week 19: Launch:** Final submission (via GitHub and optional web-hosted), along with team member contributions

Other notes:

- Ram will be providing additional information on collaborative project management software, the Agile/SCRUM framework, and any datasets needed.