Capgemini

MAINFRAME CODE CONVERSION JOURNEY

Legacy modernization workbench in action

Legacy distributed, stored proc and mainframe legacy modernization

Distributed Legacy
- Soap Services
- Web Applications
- JSP/Servlets
- Other Non-Mainframe Legacy Components

Stored Proc Legacy
- PL/SQL
- Stored Procs
- Functions
- & other stored proc related tech stacks

Mainframe Legacy
- Cobol Modules
- JCL
- ReXX
- Copybooks
- Other Mainframe Components

1. **Legacy component/s identified for processing**

Cap360

DCC Analyzer

2. **Evaluation of size of the legacy component**

Capgemini Code Refactoring Tool (CCRT)

Too Large for Processing

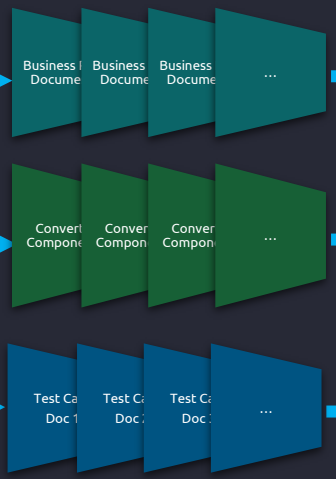
Yes

Split Legacy Component for Processing

No

3. **GenAI Software Development Toolkit**

BREAD GenYoda GitHub Copilot



Converted Component/s

4. **Code Consolidation/ Updation/ Validation Step**

Full Stack Developer & Legacy SME – 2 in a box

Rearchitect/ Rewrite

No

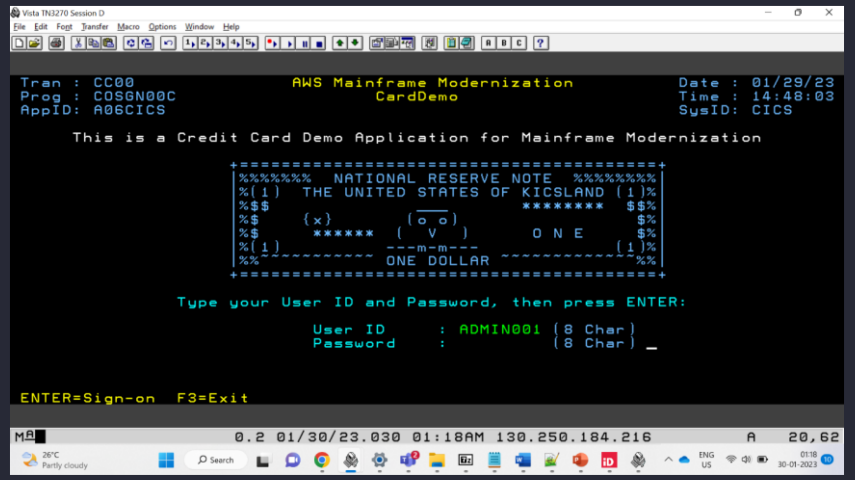
Yes

5. **GenAI Treatment (Production Ready Code)**

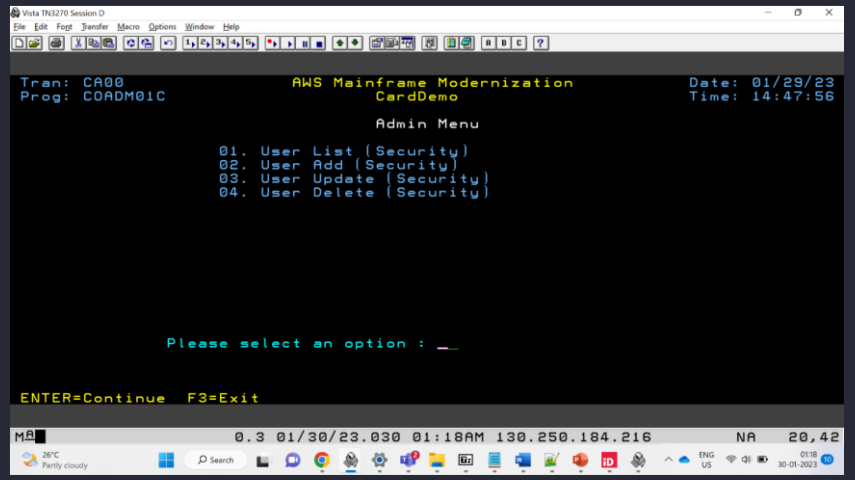
Setup for GenAI Processing

MAINFRAME SCREENS - CREDIT CARD APPLICATION

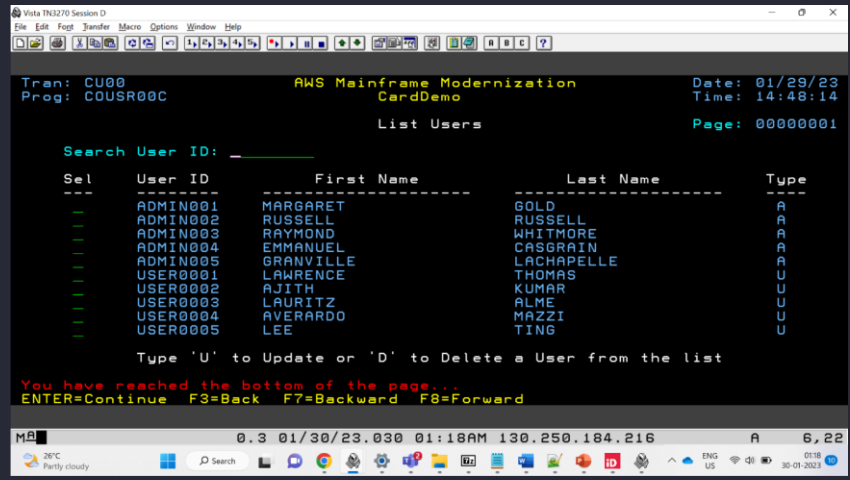
Home Page



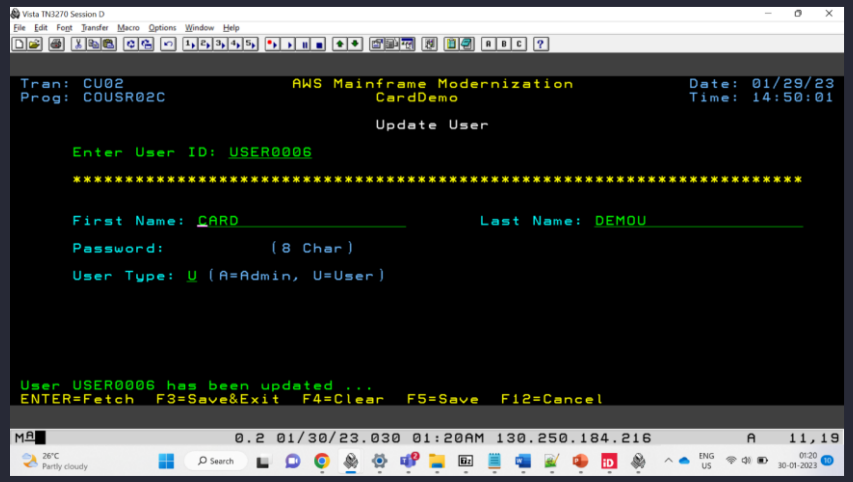
Admin – Landing Page



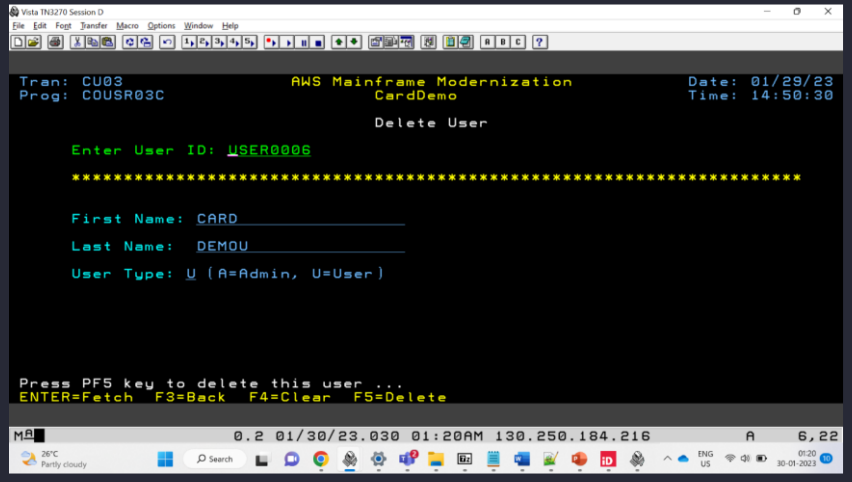
List Users



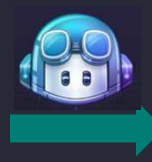
Update Users

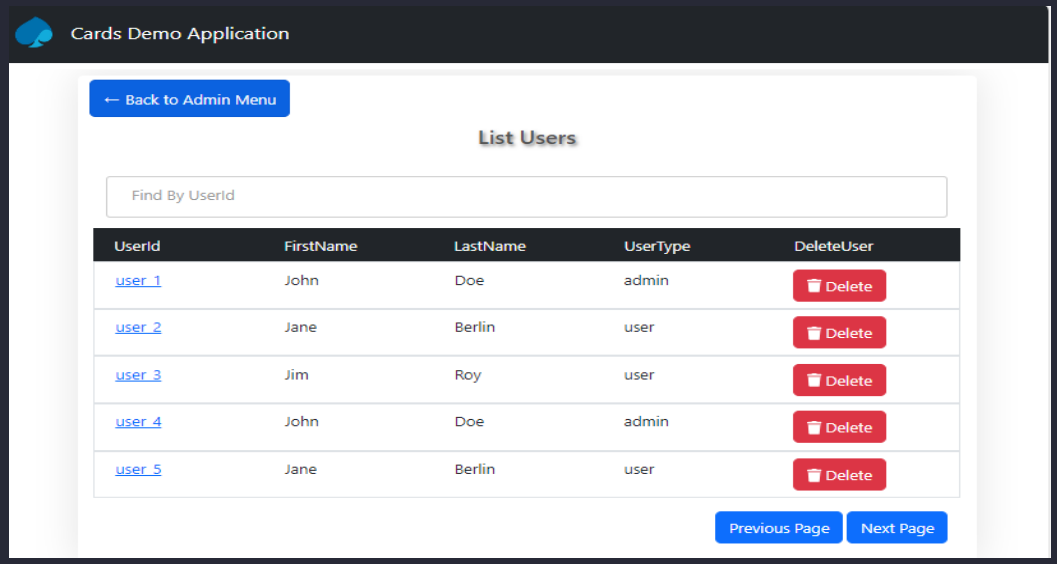


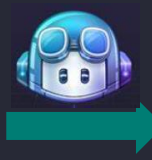
Delete Users

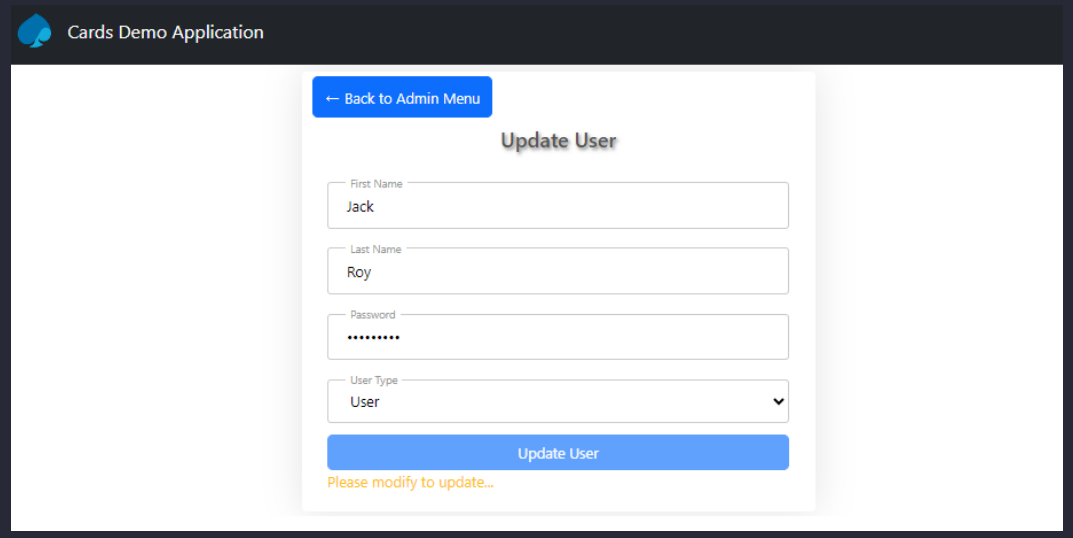


GENAI GENERATED UI



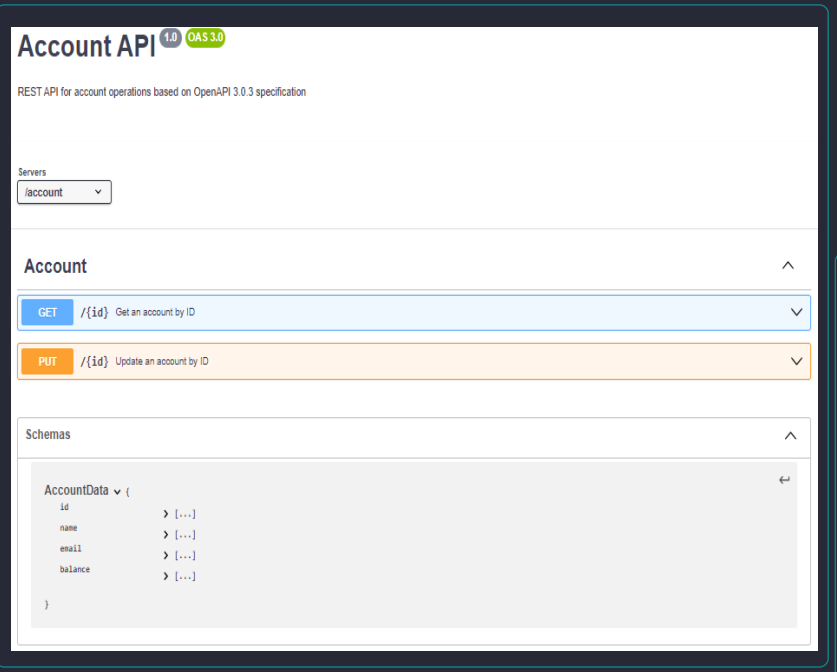






GENAI GENERATED – API SPECS, CODE, UNIT TEST CASES

Generate Open API Specifications



Generate Code

```java
/**
 * This class is a Rest Controller for handling account related operations.
 * It provides endpoints for getting and updating account details.
 */
@RestController
@RequestMapping("/account")
@Tag(name = "Account", description = "Account API")
public class AccountController {

    @Autowired
    private AccountService accountService;

    /**
     * This method is used to update the account details for a given id.
     *
     * @param id          This is the id of the account to be updated.
     * @param accountData This is the new account data to be updated.
     * @return AccountData This returns the updated account data for the given id.
     */
    @PutMapping("/{id}")
    @Operation(summary = "Update an account by ID")
    public AccountData updateAccount(@PathVariable long id, @RequestBody AccountData accountData) {
        return accountService.updateAccount(id, accountData);
    }

    /**
     * This method is used to get the account details for a given id.
     *
     * @param id This is the id of the account to be fetched.
     * @return AccountData This returns the account data for the given id.
     */
    @GetMapping("/{id}")
    @Operation(summary = "Get an account by ID")
    public AccountData getAccount(@PathVariable long id) {
        return accountService.getAccount(id);
    }
```

Generate Functional and Unit Test Cases

cards-demo-app

Element	Missed Instructions	Cov.
com.aws.cardsdemoapp.user.model		83%
com.aws.cardsdemoapp.user.entity		84%
com.aws.cardsdemoapp.account.entity		86%
com.aws.cardsdemoapp.creditcard.entity		86%
com.aws.cardsdemoapp		75%
com.aws.cardsdemoapp.user.service		100%
com.aws.cardsdemoapp.creditcard.service		100%
com.aws.cardsdemoapp.account.service		100%
com.aws.cardsdemoapp.user.controller		100%
com.aws.cardsdemoapp.config		100%
com.aws.cardsdemoapp.user.utils		100%
com.aws.cardsdemoapp.creditcard.controller		100%
com.aws.cardsdemoapp.account.controller		100%
Total	362 of 2,992	87%

About Capgemini

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided every day by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of nearly 350,000 team members in more than 50 countries. With its strong 55-year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fueled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering, and platforms. The Group reported in 2022 global revenues of €22 billion.

Get The Future You Want | www.capgemini.com

This presentation contains information that is the property of the Capgemini Group.

Copyright © 2024 Capgemini. All rights reserved.