144 Bill Payment System

by,

nikHilesh(800371),

Raghul(800373),

ShaKthi(800390),

Preetha(800372),

Sethu Lakshmi(800341).

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| com.cognizant.signup |
| |  | | --- | | SignupApplication | | + main(args[]: String): void |  |  | | --- | | WebConfig | | + addCorsMappings(registry: CorsRegistry): void |  |  | | --- | | SecurityConfig | | + configure(httpSecurity: HttpSecurity): void |  |  | | --- | | com.cognizant.signup.model | | |  | | --- | | Role | | - id: int  - name: String |  |  | | --- | | AllUsers | | - id: int  - name: String  -password: String |  |  | | --- | | User | | - id: int  - firstName: String  - lastName: String  - age: int  - gender: String  - contactNumber: int  - pan: String  - aadharNumber:String  - userId: String  - password: String |  |  | | --- | | Vendor | | - id: int  - vendorName: String  -companyRegisterNo: String  - vendorType: String  - address: String  - country: String  - state: String  - email: String  - website: String  - contact: long  - certificateIsssued: Date  - certificateValidity: Date  - establishedYear: int  - payment: String  - password: String  - image: String  - status: int  - remark: String |  |  | | --- | | MyError | | - errordescription: String  - errorcode: String | |  |  | | --- | | com.cognizant.signup.controller | | |  | | --- | | VendorController | | + getVendor (username: String): Vendor  + signup (vendor: Vendor): void |  |  | | --- | | UserController | | + getUser(username: String) : User  + signup(users: User): void  + passwordEncoder(): PasswordEncoder | |  |  | | --- | | com.cognizant.signup.dao | | |  | | --- | | org.springframework.data.jpa.repository.JpaRepository<AllUsers,Integer> | |  |  |  | | --- | | <<interface>>  VendorRepository | | + findByVendorName (username: String ): Vendor  + findAllVendor() : List<Vendor> |  |  | | --- | | <<interface>>  UserRepository | | +findByUserId(username: String): Users |  |  | | --- | | <<interface>>  AllUsersRepository | | +findByName(userName: String ): AllUsers | | |

SignUp Service – Class Diagram

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| com.cognizant.authentication |
| |  | | --- | | AuthenticationApplication | | + main(args[]: String): void |  |  | | --- | | WebConfig | | + addCorsMappings(registry: CorsRegistry): void |  |  | | --- | | SecurityConfig | | + configure(auth: AuthenticationManagerBuilder): void  + passwordEncoder(): PasswordEncoder  + configure(httpSecurity: HttpSecurity): void |  |  | | --- | | com.cognizant.authentication.exception | | |  | | --- | | org.springframework.web.servlet.mvc.method.annotation.ResponseEntityExceptionHandler | |  |  |  | | --- | | GlobalExceptionHandler | | + handleMethodArgumentNotValid (  ex: MethodArgumentNotValidExpection, headers: HttpHeaders, status: HttpStatus, request : WebRequest) : ResponseEntity<Object>  + handleHttpMessageNotReadable (  ex: HttpMessageNotReadableException, headers: HttpHeaders, status: HttpStatus, request : WebRequest) : ResponseEntity<Object> | |  |  | | --- | | com.smartshop.products.model | | |  | | --- | | Role | | - id: int  - name: String |  |  | | --- | | AllUser | | - id: int  - name: String  -password: String | |  |  | | --- | | com.cognizant.authentication.controller | | |  | | --- | | AuthenticationController | | -getUser(authHeader: String): String  -generateJwt(user: String): String | | +authenticate(authHeader: String): Map<String, String) | |  |  | | --- | | com.smartshop.products.dao | | |  | | --- | | org.springframework.data.jpa.repository.JpaRepository<AllUsers,Integer> | |  |  |  | | --- | | <<interface>>  AllUsersRepository | | +findByName(userName: String ): AllUsers | |  |  | | --- | | com.cognizant.authentication.security | | |  | | --- | | org.springframework.security.core.userdetails.UserDetailsService | |  |  |  | | --- | | AppUser | | - user : User  - authorities: Collection<? extends GrantedAuthority> | | + AppUser(user : User)  + getPassword() : String  + getUsername() : String  + isAccountNonExpired() : Boolean  + isAccountNonLocked() : Boolean  + isCredentialsNonExpired() : Boolean  + isenabled() : Boolean |  |  | | --- | | AppUserDetailsService | | +loadUserByUserName(username: String): userDetails | | |

Authentication Service – Class Diagram

Billlpay Service – Class Diagram

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| com.cognizant.billpayservice |
| |  | | --- | | BillpayServiceApplication | | + main(args[]: String): void |  |  | | --- | | WebConfig | | + addCorsMappings(registry: CorsRegistry): void |  |  | | --- | | com.cognizant.billpayservice.controller | | |  | | --- | | VendorController | | -vendorService: VendorService | | +getAllVendorAdmin(): Set<Vendor>  +updateVendor(vendor:Vendor):void | |  |  | | --- | | com.cognizant.billpayservice .model | | |  | | --- | | Vendor | | - id: long  - vendorName: String  - vendorCompany  RegisterNumber:String  - vendorType: String  - vendorAddress  : String  - country: String  -state:String  -email:String  -contactNumber:long  -website:String  -issueDate:Date  -validityYear:Date  -establishYear:int  -paymentGate  way:String  -password:String  -image:String  -status:int  -remark:String |  |  | | --- | | User | | - id: long  - firstName: String  - lastName: String  - gender: String  - age: int  - contactNumber: long  -panNumber:String  -aadharNumber:String  -userName:String  - password: String  - userType: String |  |  | | --- | | Role | | -id:long  -role;String |  |  | | --- | | AllUsers | | -id:long  -name;String  -password:String  -roleList:Set<Role> | |  |  | | --- | | com.cognizant.billpayservice.repository | | |  | | --- | | org.springframework.data.jpa.repository.JpaRepository<User,Integer> | |  |  |  | | --- | | <<interface>>  VendorRepository | | +getAllVendorAdmin():Set<Vendor> |  |  | | --- | | <<interface>>  AllUserRepository | | +findByName(allUser: String ): AllUser | |  |  | | --- | | com.cognizant.billpayservice .service | | |  | | --- | | VendorServiceImpl | | -vendorRepository: VendorRepository | | +getAllVendorAdmin(): Set<Vendor>  +updateVendor(vendor:Vendor):void |  |  | | --- | | <<interface>>  VendorService | | -vendorRepository: VendorRepository | | +getAllVendorAdmin(): Set<Vendor>  +updateVendor(vendor:Vendor):void | |  |  | | --- | | com.cognizant.billpayservice.security | | |  | | --- | | JwtAuthorizationFilter | |  | | - getAuthentication(request : HttpServletRequest) : UsernamePasswordAuthenticationToken  - doFilterInternal(req : HttpServletRequest, res : HttpServletResponse, chain : FilterChain) : void |  |  | | --- | | AppUser | | - user : AllUsers  - authorities: Collection<? extends GrantedAuthority> | | + AppUser(user : AllUser)  + getPassword() : String  + getUsername() : String  + isAccountExpired() : Boolean  + isAccountLocked() : Boolean  + isCredentialsExpired() : Boolean  + disenabled() : Boolean  + getAuthorities: Collection<? extends GrantedAuthority> |  |  | | --- | | SecurityConfig | | - appUserDetailsService : AppUserDetailsService | | + configure(auth : AuthenticationManagerBuilder) : void  + passwordEncoder() : PasswordEncoder  + configure(httpSecurity : HttpSecurity) : void | | |

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| com.cognizant.signup |
| |  | | --- | | com.cognizant.signup.exception | | |  | | --- | | org.springframework.web.servlet.mvc.method.annotation.ResponseEntityExceptionHandler | |  |  |  | | --- | | GlobalExceptionHandler | | + handleMethodArgumentNotValid (  ex: MethodArgumentNotValidExpection, headers: HttpHeaders, status: HttpStatus, request : WebRequest) : ResponseEntity<Object>  + handleHttpMessageNotReadable (  ex: HttpMessageNotReadableException, headers: HttpHeaders, status: HttpStatus, request : WebRequest) : ResponseEntity<Object>  + handleUserNotFoundException (ex: UserAlreadyExistsException, request: WebRequest) |  |  | | --- | | UserAlreadyExistException | | + msg: String | | + UserAlreadyExistException(msg: String) |  |  | | --- | | VendorAlreadyExistException | | + msg: String | | + VendorAlreadyExistException(msg: String) | |  |  | | --- | | com.cognizant.signup.service | | |  | | --- | | << interface >>  VendorService | | + getVendor (username: String) : Vendor  + getAllVendor ( ) : List<Vendor>  + signupVendor (vendor Vendor): void  + updateVendor (vendor: Vendor): Vendor |  |  | | --- | | << interface>>  UserService | | + getUser (username: String): User  + signup(users : User) : void |  |  | | --- | | VendorServiceImpl | | + getVendor (username: String) : Vendor  + getAllVendor ( ) : List<Vendor>  + signupVendor (vendor Vendor): void  + updateVendor (vendor: Vendor): Vendor |  |  | | --- | | UserServiceImpl | | + getUser (username: String): User  + signup(users : User) : void | | |

1)Login and Signup Flow:

Vendor Registration

User Registration

Vendor or user?

Yes

Already signed up?

Home Page

Login

2)Admin Flow:

Vendor List

Send for Review

Reject

Accept

Display Vendor Status

3)Vendor Flow:

View Vendor Details

Edit Details

4)User Flow:

Success

Payment mode and Transaction

Capturing bill details of the particular vendor type selected

Service providing vendor-types for customer

RETRY

WRONG

CORRECT

DataBase Schema:

