## **IAppLoggingStream** + void log(String message) + void log(Object object) + void log(String[] messages) + void log(String message, Throwable throwable) + void log(Throwable throwable) + void flush() +appStream **AppLoggingAgent** + AppLoggingAgent(IAppLogging Stream appStream) + void log(String message) **IEnvironment** + void log(Object object) + void log(String[] messages) int String + String[] getComnandLineArgs() + void log(Throwable + String getValue(String key) throwable) + List< String > getKeys() void log(String message, Throwable throwable) + Boolean HasKey(String key) + void flush() - static String getCalling MethodInfo() static String getLogHeader String() -database -driver -host -logging -environment -environment -logging -port -password -schema -userName ShoppingDataLayerService + ShoppingDataLayerService (IEnvironment environment) + void configure() + List< IDTO > executeCommand (String sql, IDbResultProcessor ShoppingPaymentService resultProcessor) + List< IDTO > executeQuery + ShoppingPaymentService (String sql, IDbResultProcessor (IEnvironment environment, resultProcessor) ShoppingBusinessLayerService -environment -logging + List< IDTO > loadDTOs shoppingBusinessService) (IDTO dto, IDTOHome dtoHome) + void configure() + List< IDTO > saveDTO + Boolean processPayment (IDTO dto) (Integer cartId, Integer + List< IDTO > saveDTOs paymentProfileId) (List< IDTO > dtos) ~ [static initializer] - void loadConfiguration (IEnvironment environment) - void getDatabaseConnection Information(IDbConnectionWrapper dbConnectionWrapper) -shoppingPaymentService -shoppingBusinessService -shoppingDataService ShoppingBusinessLayerService + ShoppingDataLayerService getShoppingDataService() + ShoppingPaymentService getShoppingPaymentService() ShoppingBusinessLayerService (IEnvironment environment, ShoppingDataLayerService shoppingDataService) + void configure() + UserDTO getUser(String username) + IProductCatalog getProduct Catalog() + IDTO getProductById (Integer productId) + IDTO getUser(Integer userId) + List< IDTO > getRoles() + List< IDTO > getUserRoles (Integer userId) + IDTO getActiveCart (Integer userId) + List< IDTO > getPaymentProfiles() + IDTO getPaymentProfile (Integer paymentProfileId) + List< IDTO > getUserProfiles (Integer userId) + List< IDTO > getCartByStatus (Integer userId, String status) + IDTO getCart(Integer cartId) + List< IDTO > getCartItems

(Integer cartId)

email)

orderId)

(IDTO dto)

(IDTO dto)
# void addAuditTrail
(String msg, UserDTO

userDTO)

+ IDTO getUserDTO(String

+ IDTO getOrder(Integer

+ Boolean validateLogin (String user, String pwd)+ List< IDTO > saveDTO

+ List< IDTO > loadDTOs