




Task 3

Unit testiranje

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Odsjek - Računarstvo i informatika
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Spisak testova:

Član 1: Almedin Pašalić

- Index_ShouldReturnViewWithProducts Create_ShouldReturnView
- SearchResult_ShouldReturnViewWithFilteredProducts
- SearchResult_ShouldReturnViewWithAllProductsWhenSearchIsNull
- Details_ReturnsNotFound_WhenIdIsNull Details_ReturnsNotFound_WhenProductIsNull
- PopularSearches_ReturnsViewWithFilteredProducts
- PopularSearches_ReturnsViewWithCategoryProducts
- PopularSearches_ReturnsViewWithFlowerTypeProducts
- PopularSearches_ReturnsViewWithEmptyCategoryList
- Sort_ReturnsPartialViewWithSortedProducts
- Sort_ReturnsPartialViewWithSortedProducts_WhenCategoryIsNull
- Sort_ReturnsPartialViewWithSortedProducts_WhenFlowerTypeIsNull
- Sort_ReturnsPartialViewWithSortedProducts_WhenSearchStringIsNull
- Sort_ReturnsPartialViewWithSortedProducts_WhenSortOptionIsAscendingPrice
- Sort_ReturnsPartialViewWithSortedProducts_WhenSortOptionIsDescendingPrice
- Edit_ShouldReturnViewWithProduct
- Edit_ShouldReturnNotFound_WhenIdDoesNotMatch
- Edit_ShouldReturnViewWithAllProducts_WhenEditIsSuccessful
- Edit_ShouldReturnViewWithAllProducts_WhenProductIsNull
- EditNameAndPrice_ReturnsViewWithProduct_WhenProductDoesntExist_ModelStateIsntValid
- EditNameAndPrice_ShouldReturnViewWithAllProducts_WhenEditIsSuccessful
- EditNameAndPrice_ShouldReturnViewWithAllProducts_WhenProductIsNull
- Delete_ShouldReturnViewWithProduct_WhenProductExists
- DeleteConfirmed_ShouldRedirectToIndex_WhenProductExists
- **Details_ShouldReturnViewWithCorrectProduct**
- **EditAll_ShouldUpdateProductAndSaveChanges**
- SetSortStrategy_ShouldSetSortStrategy
- OnGetAsync_SetsReturnUrlAndExternalLogins
- InputModel_Email_ShouldBeRequired
- OnPostAsync_IsLockedOut_RedirectsToLoginWithLockout
- OnPostAsync_Failed_ReturnsToLoginPage
- OnPostAsync_WhenModelIsNotValid
- AboutUs_ShouldReturnViewResult
- GetStatus_ShouldReturnGuest

Član 2: Ilhan Hasičić

- CategoryView_ShouldReturnFilteredProducts
- BestSellers_ShouldReturnTop3ProductsByPrice

- BirthdayBestSellers_ShouldReturnTop3BirthdayBestSellingProducts
- **OverallRating_ShouldCalculateAverageRating**
- Category_ShouldReturnProductsInCategory
- CategoryView_ShouldReturnEmptyListForNullResults
- **Category_ShouldReturnZeroProductsInCategory**
- Privacy_ShouldReturnView
- Help_ShouldReturnView
- DeliveryPolicy_ShouldReturnView
- SignIn_ShouldReturnView
- Subscription_ShouldReturnView
- ErrorTest
- SendVerificationCode_ShouldCallSendEmailToCustomer
- GetVerificationCode_ShouldReturnNullWhenCachelsEmpty
- VerifyCode_ShouldReturnTrueForValidCode
- VerifyCode_ShouldReturnFalseForInvalidCode
- GenerateCode_ShouldReturn4DigitCode
- Configure_ShouldCallConfigureServices
- CreateHostBuilder_ShouldReturnValidHostBuilder

Član 3: Lejla Heleg

- GetInactiveCustomers_HasInactiveCustomers_ReturnsOneCustomer
- GetDiscount_ValidDiscountCode_ShouldCallOnce
- VerifyDiscountCode_ValidDiscountCode_ShouldCallOnce
- VerifyExperationDate_ValidDiscountCode_ShouldCallOnce
- VerifyDiscountCode_WithExistingCodeAndValidDate_ReturnsTrue
- GetDiscount_WithNonExistingCode_ReturnsNull
- VerifyDiscountCode_WithNonExistingCode_ReturnsFalse
- VerifyExperationDate_WithValidDate_ReturnsTrue
- VerifyExperationDate_WithInvalidDate_ReturnsFalse
- **CheckAndSendEmail_InactiveCustomersExist_SendsOneEmailEach**
- Edit_OrderIsNull_NotFoundResult
- Edit_OrderIsNotNull_OrderRatingUpdated
- GetOrderProducts_OrderIsNotNull_ShouldOpenViewWithCorrectUserOrders
- ReportConstructor_WithParameters_ObjectInstanceMade
- **CreateReport_DifferentReportTypes_ReturnsFileResult**
- CreateReport_InvalidParameter_ThrowsArgumentException
- GenerateReport_WeeklyReport_ReturnsByteResult
- GenerateReport_MonthlyReport_ReturnsByteResult
- GenerateReport_YearlyReport_ReturnsByteResult

Član 4: Aida Zametica

- ApplicationDbContext_ModelConfiguration_ContainsEntities
- ApplicationDbContext_TableNameConfiguration_TableNamesMatchExpected
- DtoRequest_Initialization_NotNullAfter
- RemoveItem_WhenProductQuantityMoreThenOne_DecreasesQuantity
- RemoveItem_WhenProductQuantityEqualOne_RemoveProduct
- RemoveItem_WhenUserIdsIsNull_ThrowsArgumentNullException
- ApplyDiscount_ValidCodeAndNotExpired_ShouldRedirectToCartWithDiscount
- ApplyDiscount_ValidCodeAndExpired_ShouldRedirectToCartWithoutDiscount
- ApplyDiscount_InvalidCode_ShouldRedirectToCartWithoutDiscount
- CalculateDiscount_ValidCodeAndNotExpired_ShouldApplyDiscountCorrectly
- AddToCart_WhenProductItemExists_IncreaseQuantity
- AddToCart_WhenUserIdsIsNull_ThrowsArgumentNullException
- AddToCart_WhenProductItemNotFound_CreatesCartWithProduct
- **SavePaymentData_ShouldSavePaymentCorrectly**
- SaveOrderData_ShouldSaveOrderCorrectly
- ThankYou_ReturnsViewWithOrderType
- **Cart_RedirectActionToCart_ShouldUpdateViewBagCorrectly**
- GetCartProducts_GivenCarts_ReturnsListOfProductsForEachCart
- OrderCreate_ValidInput_ReturnsRedirect
- OrderCreate_WhenUserIdsIsNull_ThrowsArgumentNullException
- ProcessCartItems_ShouldProcessItemsAndRemoveCarts
- RequestId_SetAndGet_ReturnsCorrectValue
- ShowRequestId_RequestIdsSet_ReturnsTrue
- ShowRequestId_RequestIdNotSet_ReturnsFalse
- OverallRating_NoOrders_ShouldReturnAverageRatingZero
- InputModel_Email_ShouldBeRequired
- OnGetAsync_ClearsExternalAuthenticationCookieAndSetsReturnUrl
- OnPostAsync_ValidModelState_Succeeds_ReturnsLocalRedirect
- OnPostAsync_RequiresTwoFactor_RedirectsToLoginWith2fa
- OnPostAsync_IsLockedOut_RedirectsToLoginWithLockout
- OnPostAsync_Failed_ReturnsToLoginPage
- SendEmail_WithInvalidApiKey_Fails
- ProductSalesID_IsSet_GetProductSalesIDReturnsCorrectValue
- Product_IsSet_GetProductReturnsCorrectProduct
- OnPostAsync_ModelStateNotValid_ReturnsPageResult
- UserState_Initialization_ReturnsNotNullInstance
- CanPurchase_WhenInitialState_ReturnsFalse

- CanView_WhenInitialState_ReturnsTrue
- SetState_WithGuestState_SetsCorrectStateProperties

Član 5: Vedran Mujić

- GetStatus_ShouldReturnGuest
- AboutUs_ShouldReturnViewResult
- GetStatus_ShouldReturnLoggedIn
- CanPurchase_ShouldReturnTrue
- CanView_ShouldReturnTrue
- EditNameAndPrice_ShouldUpdateNameAndPriceAndSaveChanges
- GetAllProducts_ShouldReturnAllProducts
- Edit_ShouldReturnViewWithAllProducts_WhenProductIsNull
- EditNameAndPrice_ReturnsViewWithProduct_WhenProductDoesntExist_ModelStateIsntValid
- EditNameAndPrice_ShouldReturnViewWithAllProducts_WhenEditIsSuccessful
- EditNameAndPrice_ShouldReturnViewWithAllProducts_WhenProductIsNull
- **ProductExists_ShouldReturnTrue_WhenProductExists**
- **Create_ShouldRedirectToAction**
- **Create_ProductWithPriceError**
- SetSortStrategy_ShouldSetSortStrategy
- **Sort_ShouldReturnCorrectTypeOfSubscription**
- OnGetAsync_ValidEmail_ReturnsPageResult
- OnGetAsync_UserIsNull_ReturnsNotFound
- OnGetAsync_EmailIsNull_ReturnsRedirectToPageIndex
- OnGetAsync_ValidEmail_SetsPropertiesCorrectly
- OnPostAsync_UserIsNull_ReturnsNotFound
- OnPostAsync_ModelStateNotValid_ReturnsPage
- OnPostAsync_VerifyCodeFalse_DeletesUserAndReturnsRedirectToRegister
- OnPostAsync_VerifyCodeTrue_SignsInUserAndReturnsLocalRedirect
- OnPostAsync_VerifyCodeTrue_UpdateUserFails_AddsErrorsToModelState

Tim je uspješno završio task unit testiranja. Svaki član tima aktivno je doprinio testiranju funkcionalnosti koje su implementirali, pritom kreirajući određen broj testova. Takođe, prilikom testiranja koristili smo data driven pristup u dva formata - XML i CSV. Svi data driven testovi označeni su podebljanim fontom u spisku testova za svakog pojedinačnog člana tima. Rezultati testiranja pokazuju da je pokrivenosti aplikacije od strane unit testova 93.7%.

Prikaz pokrivenosti koda:

Name	Covered	Uncovered	Coverable	Total	Line coverage	Covered	Total	Branch coverage
Ayana	1269	85	1354	2779	93.7%	280	304	92.1%
Ayana.Areas.Identity.IdentityHostingStartup	4	0	4	21	100%	0	0	
Ayana.Areas.Identity.Pages.Account.LoginModel	44	3	47	111	93.6%	13	14	92.8%