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1 Problem Statement: Buy Camera from Amazon.com
2
3 • Behaviors and Key Objects:
4
5 - Internet/Website:
6 * Behavior: establishWebService, AmazonResponse
7 * Data: URL
8
9 - Website User:
10 * Behavior: searchItem, addCartItem, removeCartItem, reviewSubTotal, selectDeliveryAddress
11 * Data: User Name, User ID, User Password, User Email Address, User Phone, User Address
12
13 - Website Login:
14 * Behavior: logintoWebsite, createnewAccount, forgotPassword, verifyOTP, validate(emailAddress, password)
15 * Data: Email Address, Password, Phone Number
16
17 - Cart:
18 * Behavior: saveforLater, compareSimilarItems, checkOutCartItem
19 * Data: Cart Item
20
21 - Item:
22 * Behavior:
23 * Data: Item Name, Item Description, Item Price, Item Quantity
24
25 - Purchase:
26 * Behavior: editPurchase, confirmPurchase, cancelPurchase
27 * Data: Purchase ID, Purchase Date, Purchase Summary, Delivery Estimate, Seller Details, Payment Method, Billing Address, Shipping Address
28
29 - Payment:
30 * Behavior: makePayment
31 * Data: Payment Method, Card Number
32
33 * Sequence of Flow - Invoke Objects with Behaviors:
34
35 User User
36 Website Amazon
37
38 //Validate if the entered URL is valid
39 IF url.isValid = true
40     boolean connection = Amazon.establishWebService()
41     //Authenticate the user if credentials are valid
42     IF connection.isValid = true
43         Boolean authenticated = user.logintoWebsite(url, emailAddress, userPassword)
44         AmazonResponse response = Amazon.validate(emailAddress, password)
45         //Amazon validates the right user and allows the user to proceed further
46         IF authenticated.isValid = true && Amazon.validate = true
47             Amazon response = user.chooseTwoFactorAuthenticationMethod()
48             IF response.isValid = true
49                 AmazonResponse response = verifyOTP(userPhone, Amazon)
50                 IF verifyOTP.isValid = true
51                     //User has to stay logged in to Amazon.com and select the item of choice
52                     while user.logintoWebsite = true
53                         user.searchItem(Camera)
54                         IF item.valid = true
55                             user.addCartItem(Camera)
56                             //Assuming once added to the cart, the only item can be checked out
57                             IF cart.checkOutCartItem = true
58                                 userResponse response = user.reviewSubTotal(totalSum)
59                                 userResponse response = user.selectDeliveryAddress()
60                                 //User has to select the payment method; Card/Third Party
61                                 userResponse response = user.selectPaymentMethod(Card) || user.selectPaymentMethod(thirdParty)
62                                 user.makePayment(Card) || user.makePayment(thirdParty)
63                                 AmazonResponse response = Amazon.validatePayment()
64                                 IF Amazon.validatePayment = true()
65                                     AmazonResponse response = confirmPurchase(deliveryEstimate, purchaseSummary)
66                                 ELSE
67                                     AmazonResponse response = message.PaymentFailed(error)
68                                     //User can choose to make the payment again or cancel the purchase
69                                     userResponse response = user.makePayment(Card || thirdParty) || userResponse response = user.cancelPurchase()
70                                 END
71                             ELSE
72                                 //User can choose to edit the purchase : save for later, compare, remove the items
73                                 userResponse response = user.editPurchase()
74                                 userResponse response = (cart.saveitemforLater || cart.compareSimilarItems || cart.removeCartItem)
75                             END
76                         ELSE
77                             //If item is not found in search
78                             AmazonResponse response = item.noProduct(error)
79                         END
80                     ELSE
81
82                     END
83                 ELSE
84
85                 END
86             ELSE
87                 //User has the ability to create new account, recover forgotten password
88                 AmazonResponse response = user.createnewAccount || AmazonResponse response = user.forgotPassword
89             END
90         ELSE
91
92         END
93     ELSE

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