

IT314 Software Engineering

Frontend White-box testing(ViTTest)

**GROUP 29 - Market Connect
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1. Unit Testing Overview

1.1 Coverage Metrics Code coverage metrics measure the extent to which source code is executed by tests:

- Statements: Percentage of executable statements executed by tests
- Branches: Percentage of conditional branches (if/else) executed
- Functions: Percentage of function definitions executed
- Lines: Percentage of source code lines executed

2. Overall Coverage Summary

2.1 Executive Summary

All files

90.26% Statements 2300/2548

76.55% Branches 1424/1860

86.37% Functions 520/602

90.61% Lines 2220/2450

The project achieves strong overall unit test coverage with statements (90.26%), branches(76.55%), functions (86.37%), and lines (90.61%) around 90%. Branch coverage (87.67%) indicates room for improvement in testing conditional logic.

3. Terminal Outputs

| % Coverage report from v8 | | | | | |
|---------------------------------|--------------|--------------|--------------|--------------|-------------------------------|
| File | %Stmts | %Branch | %Funcs | %Lines | Uncovered Line #s |
| All files | 90.26 | 76.55 | 86.37 | 90.61 | |
| services | 98.76 | 100 | 97.29 | 98.76 | |
| auction.js | 100 | 100 | 100 | 100 | |
| order.js | 100 | 100 | 100 | 100 | |
| payment.js | 100 | 100 | 100 | 100 | |
| product.js | 100 | 100 | 100 | 100 | |
| return.js | 100 | 100 | 100 | 100 | |
| review.js | 86.66 | 100 | 80 | 86.66 | 30-31 |
| user.js | 100 | 100 | 100 | 100 | |
| src | 100 | 100 | 100 | 100 | |
| App.jsx | 100 | 100 | 100 | 100 | |
| src/components | 100 | 100 | 100 | 100 | |
| ProtectedRoute.jsx | 100 | 100 | 100 | 100 | |
| src/components/Auction | 74.38 | 58.26 | 78.12 | 75.47 | |
| AuctionDetail.jsx | 62.02 | 39.72 | 64.7 | 64.28 | ...-88,99-113,118-121,128-185 |
| AuctionListing.jsx | 97.61 | 90.47 | 93.33 | 97.22 | 118 |
| src/components/admin dashboard | 84.33 | 70.94 | 73.77 | 84.27 | |
| adminDashboard.jsx | 84.33 | 70.94 | 73.77 | 84.27 | ...27-845,849,879-890,911-929 |
| src/components/buyer dashboard | 99.38 | 83.6 | 98.27 | 100 | |
| BuyerDashboard.jsx | 99.38 | 83.6 | 98.27 | 100 | ...63-364,499,512-517,571-579 |
| src/components/customerService | 93.7 | 79.01 | 93.54 | 94.16 | |
| CustomerService.jsx | 93.7 | 79.01 | 93.54 | 94.16 | 28,81-82,114,291-292,425-432 |
| src/components/login-signup | 94.57 | 90.09 | 84.61 | 95.22 | |
| AdminLogin.jsx | 97.87 | 92.3 | 100 | 97.87 | 56 |
| GoogleCallback.jsx | 95.41 | 88.46 | 83.33 | 95.41 | 73,94,154,271-272 |
| Login.jsx | 91.71 | 86.82 | 77.27 | 92.77 | ...82,229,395,432-435,501-502 |
| ResetPassword.jsx | 95.55 | 91.3 | 88.88 | 97.67 | 221 |
| Signup.jsx | 98.14 | 98 | 100 | 98.14 | 106 |
| src/components/payment | 97.05 | 73.68 | 100 | 96.96 | |
| PaymentGateway.jsx | 97.05 | 73.68 | 100 | 96.96 | 44,109 |
| src/components/profile | 92.64 | 78.64 | 87.09 | 93.75 | |
| Profile.jsx | 92.64 | 78.64 | 87.09 | 93.75 | ...65,699,703,773-792,796,859 |
| src/components/seller dashboard | 73.96 | 61.85 | 73.38 | 73.54 | |
| AddProduct.jsx | 95.58 | 94.18 | 95.16 | 96.31 | 85-86,467,637-639 |
| ReviewManagement.jsx | 100 | 90.24 | 100 | 100 | 37-38,176-178 |
| SellerDashboard.jsx | 52.15 | 32.6 | 43.33 | 52.21 | ...57,381-385,415-460,660-937 |
| src/contextes | 99.66 | 86.95 | 100 | 99.64 | |
| AuctionContext.jsx | 100 | 80.51 | 100 | 100 | 23-24,28-34,53-67,93,100-133 |
| | | | | | |
| AuctionContext.jsx | 100 | 80.51 | 100 | 100 | 23-24,28-34,53-67,93,100-133 |
| AuthContext.jsx | 100 | 100 | 100 | 100 | |
| CartContext.jsx | 100 | 100 | 100 | 100 | |
| ProductsContext.jsx | 98.24 | 88.46 | 100 | 98.14 | 29 |
| src/pages | 97.58 | 87.79 | 95.83 | 97.54 | |
| BecomeSellerPage.jsx | 98.57 | 98.18 | 94.44 | 98.52 | 126 |
| CheckoutPage.jsx | 95.76 | 77.1 | 95 | 95.68 | 47-48,157,189,252 |
| ProductDetailPage.jsx | 100 | 97.05 | 100 | 100 | 99 |

PS C:\Users\tanis\OneDrive\Desktop\Market_Connect\Frontend> []

4. Results

All Files

| All files | | | | | | | | | |
|---|---------------------------|--------------------------|------------------------|---------|--------|---------|--------|---------|--|
| | Statements | Branches | Functions | Lines | | | | | |
| 90.26% Statements 2308/2548 | 76.55% Branches 1424/1860 | 86.37% Functions 528/602 | 90.61% Lines 2228/2450 | | | | | | |
| Press <i>n</i> or <i>j</i> to go to the next uncovered block, <i>b</i> , <i>p</i> or <i>k</i> for the previous block. | | | | | | | | | |
| Filter: <input type="text"/> | | | | | | | | | |
| File ▾ | Statements | Branches | Functions | Lines | | | | | |
| services | 98.76% | 160/162 | 100% | 6/6 | 97.29% | 36/37 | 98.76% | 160/162 | |
| src | 100% | 1/1 | 100% | 0/0 | 100% | 1/1 | 100% | 1/1 | |
| src/components | 100% | 11/11 | 100% | 10/10 | 100% | 1/1 | 100% | 11/11 | |
| src/components/Auction | 74.38% | 90/121 | 58.26% | 67/115 | 78.12% | 25/32 | 75.47% | 80/106 | |
| src/components/admin dashboard | 84.33% | 210/249 | 70.94% | 127/179 | 73.77% | 45/61 | 84.27% | 209/248 | |
| src/components/buyer dashboard | 99.38% | 161/162 | 83.6% | 153/183 | 98.27% | 57/58 | 100% | 153/153 | |
| src/components/customerService | 93.7% | 134/143 | 79.01% | 64/81 | 93.54% | 29/31 | 94.16% | 129/137 | |
| src/components/login-signup | 94.57% | 401/424 | 90.09% | 273/303 | 84.81% | 44/52 | 95.22% | 399/419 | |
| src/components/payment | 97.05% | 66/68 | 73.68% | 28/38 | 100% | 12/12 | 96.96% | 64/66 | |
| src/components/profile | 92.64% | 189/204 | 78.64% | 151/192 | 87.09% | 54/62 | 93.75% | 180/192 | |
| src/components/seller dashboard | 73.96% | 338/457 | 61.85% | 274/443 | 73.38% | 102/139 | 73.54% | 317/431 | |
| src/context | 99.66% | 297/298 | 86.95% | 120/138 | 100% | 68/68 | 99.64% | 279/280 | |
| src/pages | 97.58% | 242/248 | 87.79% | 151/172 | 95.83% | 46/48 | 97.54% | 238/244 | |

Services

| All files services | | | | | | | | | |
|---|-------------------|------------------------|----------------------|-------|------|-----|--------|-------|--|
| | Statements | Branches | Functions | Lines | | | | | |
| 98.76% Statements 160/162 | 100% Branches 6/6 | 97.29% Functions 36/37 | 98.76% Lines 160/162 | | | | | | |
| Press <i>n</i> or <i>j</i> to go to the next uncovered block, <i>b</i> , <i>p</i> or <i>k</i> for the previous block. | | | | | | | | | |
| Filter: <input type="text"/> | | | | | | | | | |
| File ▾ | Statements | Branches | Functions | Lines | | | | | |
| auction.js | 100% | 36/36 | 100% | 2/2 | 100% | 6/6 | 100% | 36/36 | |
| order.js | 100% | 6/6 | 100% | 0/0 | 100% | 3/3 | 100% | 6/6 | |
| payment.js | 100% | 18/18 | 100% | 0/0 | 100% | 6/6 | 100% | 18/18 | |
| product.js | 100% | 23/23 | 100% | 0/0 | 100% | 4/4 | 100% | 23/23 | |
| return.js | 100% | 12/12 | 100% | 0/0 | 100% | 4/4 | 100% | 12/12 | |
| review.js | 86.66% | 13/15 | 100% | 0/0 | 80% | 4/5 | 86.66% | 13/15 | |
| user.js | 100% | 52/52 | 100% | 4/4 | 100% | 9/9 | 100% | 52/52 | |

Auction

| All files src/components/Auction | | | | | | | | | |
|---|------------------------|------------------------|---------------------|-------|--------|-------|--------|-------|--|
| | Statements | Branches | Functions | Lines | | | | | |
| 74.38% Statements 98/121 | 58.26% Branches 67/115 | 78.12% Functions 25/32 | 75.47% Lines 88/106 | | | | | | |
| Press <i>n</i> or <i>j</i> to go to the next uncovered block, <i>b</i> , <i>p</i> or <i>k</i> for the previous block. | | | | | | | | | |
| Filter: <input type="text"/> | | | | | | | | | |
| File ▾ | Statements | Branches | Functions | Lines | | | | | |
| AuctionDetail.jsx | 62.02% | 49/79 | 39.72% | 29/73 | 64.7% | 11/17 | 64.28% | 45/70 | |
| AuctionListing.jsx | 97.61% | 41/42 | 90.47% | 38/42 | 93.33% | 14/15 | 97.22% | 35/36 | |

Login-Signup

All files src/components/login-signup

94.57% Statements 481/424 90.09% Branches 273/303 84.61% Functions 44/52 95.22% Lines 399/419

Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.

Filter:

| File | Statements | Branches | Functions | Lines |
|--------------------|------------|----------|-----------|--------|
| AdminLogin.jsx | 97.87% | 46/47 | 100% | 97.87% |
| GoogleCallback.jsx | 95.41% | 104/109 | 83.33% | 95.41% |
| Login.jsx | 91.71% | 155/169 | 77.27% | 92.77% |
| ResetPassword.jsx | 95.55% | 43/45 | 88.28% | 97.67% |
| Sigup.jsx | 98.14% | 53/54 | 100% | 98.14% |

Seller-Dashboard

All files src/components/seller dashboard

73.96% Statements 338/457 61.85% Branches 274/443 73.38% Functions 102/139 73.54% Lines 317/431

Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.

Filter:

| File | Statements | Branches | Functions | Lines |
|----------------------|------------|----------|-----------|--------|
| AddProduct.jsx | 95.58% | 173/181 | 95.16% | 96.31% |
| ReviewManagement.jsx | 100% | 44/44 | 100% | 100% |
| SellerDashboard.jsx | 52.15% | 121/232 | 43.33% | 52.21% |

Contexts

All files src/context

99.66% Statements 297/298 86.95% Branches 129/138 100% Functions 68/68 99.64% Lines 279/288

Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.

Filter:

| File | Statements | Branches | Functions | Lines |
|---------------------|------------|----------|-----------|-------|
| AuctionContext.jsx | 100% | 112/112 | 100% | 100% |
| AuthContext.jsx | 100% | 69/69 | 100% | 69/69 |
| CartContext.jsx | 100% | 60/60 | 100% | 52/52 |
| ProductsContext.jsx | 98.24% | 56/57 | 100% | 53/54 |

Pages

All files src/pages

97.50% Statements 242/248 87.79% Branches 351/372 95.83% Functions 46/48 97.54% Lines 238/244

Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.

Filter:

| File | Statements | Branches | Functions | Lines |
|-----------------------|------------|----------|-----------|--------|
| BecomeSellerPage.jsx | 98.57% | 69/70 | 94.44% | 98.52% |
| CheckoutPage.jsx | 95.76% | 113/118 | 95% | 95.68% |
| ProductDetailPage.jsx | 100% | 60/60 | 100% | 60/60 |