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| --- | --- | --- | --- | --- | --- |
| **Feature** | **EndPoint** | **Method** | **Description** | **Parameters** | **Response Example** |
| Authentication | /auth/login | POST | User Login | email, password, userid, name, role | {  "email": "user@example.com",  "password": "password123" } Response (200):  {  "token": "ey12345exampletoken",  "expires\_in": 3600,  "user": {  "id": "u1",  "name": "Ali Asghar",  "email": "aliasghar@gmail.com",  "role": "customer"  } } Response (401):  {  "error": "Invalid email or password" } |
| Product Management | /products | GET | Get All Products | id, name, desc, price, category, size, colors, image, instock | Response (200):  [  {  "id": "p1",  "name": "Casual T-Shirt",  "description": "100% cotton unisex t-shirt",  "price": 19.99,  "category": "T-Shirts",  "sizes": ["S", "M", "L", "XL"],  "colors": ["White", "Black"],  "image": "https://cdn.example.com/tshirt1.jpg",  "in\_stock": true  },  {  "id": "p2",  "name": "Denim Jacket",  "description": "Premium quality denim jacket",  "price": 59.99,  "category": "Jackets",  "sizes": ["M", "L"],  "colors": ["Blue"],  "image": "https://cdn.example.com/jacket1.jpg",  "in\_stock": false  } ] |
| Product Management | /products/{id} | GET | Get Products by ID | id, name, desc, price, category, size, colors, image, instock | • Response (200):  • { • "id": "p1", • "name": "Casual T-Shirt", • "description": "100% cotton unisex t-shirt", • "price": 19.99, • "category": "T-Shirts", • "sizes": ["S", "M", "L", "XL"], • "colors": ["White", "Black"], • "image": "https://cdn.example.com/tshirt1.jpg", • "in\_stock": true • } |
| Product Management | /products | POST | Create Product (Admin Only) |  | Method: POST Request Body:  {  "name": "Leather Boots",  "description": "Genuine leather boots for men and women",  "price": 129.99,  "category": "Footwear",  "sizes": ["8", "9", "10", "11"],  "colors": ["Brown", "Black"],  "image": "https://cdn.example.com/boots1.jpg",  "in\_stock": true } Response (201):  {  "message": "Product created successfully",  "product": {  "id": "p3",  "name": "Leather Boots",  "price": 129.99  } } |
| Category Management | /categories | GET | Get All Categories |  | Response (200):  [  {  "id": "c1",  "name": "T-Shirts"  },  {  "id": "c2",  "name": "Jackets"  },  {  "id": "c3",  "name": "Footwear"  } ] |
|  | /categories | POST | Create Category (Admin Only) |  | Request Body:  {  "name": "Accessories" } Response (201):  {  "message": "Category created successfully",  "category": {  "id": "c4",  "name": "Accessories"  } } |
| Cart Management | /cart/add | POST | Add to Cart |  | **Request Body**:  {  "userId": "u1",  "productId": "p1",  "quantity": 2  }  **Response (200)**:  {  "message": "Product added to cart successfully",  "cart": {  "userId": "u1",  "items": [  {  "productId": "p1",  "quantity": 2  }  ]  }  } |
| Order Management | /orders | POST | Create Order |  | **Request Body**:  {  "userId": "u1",  "products": [  { "productId": "p1", "quantity": 2 },  { "productId": "p2", "quantity": 1 }  ],  "shippingAddress": {  "line1": "123 Fashion St",  "city": "Los Angeles",  "state": "CA",  "zip": "90001",  "country": "US"  }  }  **Response (201)**:  {  "message": "Order created successfully",  "order": {  "id": "o1",  "totalAmount": 99.97  }  } |
| Payment Processing (Stripe API) | /payments/create-intent | POST | Create Payment Intent |  | **Request Body**:  {  "amount": 99.97,  "currency": "USD"  }  **Response (200)**:  {  "clientSecret": "pi\_123456789\_secret\_abcdefgh"  } |
| Shipping Management (Ship Engine API) | /shipping/rates | POST | Get Shipping Rates |  | **Request Body**:  {  "from": {  "postalCode": "90001",  "countryCode": "US"  },  "to": {  "postalCode": "10001",  "countryCode": "US"  },  "weight": {  "value": 2.5,  "unit": "pounds"  }  }  **Response (200)**:  [  {  "carrier": "UPS",  "service": "Ground",  "rate": 12.99,  "estimatedDeliveryDays": 3  },  {  "carrier": "FedEx",  "service": "Express",  "rate": 24.99,  "estimatedDeliveryDays": 1  }  ] |
|  | /shipping/create-label | POST | Create Shipping Label |  | {  "shipment": {  "fromAddress": {  "line1": "Warehouse 1",  "city": "Los Angeles",  "state": "CA",  "zip": "90001",  "country": "US"  },  "toAddress": {  "line1": "123 Fashion St",  "city": "New York",  "state": "NY",  "zip": "10001",  "country": "US"  },  "weight": {  "value": 2.5,  "unit": "pounds"  },  "carrier": "UPS",  "serviceCode": "ground"  }  }  **Response (200)**:  {  "label": {  "labelUrl": "https://cdn.example.com/shipping\_label.pdf",  "trackingNumber": "1Z12345E1234567890"  }  } |
| Error Handling |  |  | General Error Format |  | **Response (4xx/5xx)**:  {  "error": "Error description",  "details": "Optional details about the error"  } |