a) Use Case: Create a new user account (Registration)
- Resource(s): users
- HTTP Method: POST
- Request URL: http://localhost:8080/api/users
- Request Body:
```
{
  "name": "Alice Smith",
  "email": "alice@university.edu",
  "password": "alice123",
  "role": "Seller"
}
```
- Response:
```
{
  "message": "User created successfully",
  "user": {
    "id": "692a1f49194999909c33d64a",
    "name": "Alice Smith",
    "email": "alice@university.edu",
    "role": "Seller",
    "verified": false,
    "created_at": "2025-11-28T22:16:41.326931"
  }
}
```

b) Use Case: User login - creates a JWT session token
  - Resource(s): sessions
  - HTTP Method: POST
  - Request URL: http://localhost:8080/api/sessions
  - Request Body:
    ```
    {
      "email": "alice@university.edu",
      "password": "alice123"
    }
    ```
  - Response:
    ```
    {
      "token":
    "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJ1c2VyX2lkIjoiNjkyYTFmND
    kxOTQ5OTk5MDljMzNkNjRhIiwiZXhwIjoxNzY0NDU1MjY5LCJpYXQiOjE
    3NjQzNjg4Njl9.CIQel4jya53gwKLu0EE5O54upEg3db6FRsUJXNkBhL0",
      "user": {
        "id": "692a1f49194999909c33d64a",
        "name": "Alice Smith",
        "email": "alice@university.edu",
        "role": "Seller",
        "verified": false,
        "created_at": "2025-11-28T22:16:41.326000"
      },
      "message": "Login successful"
    }
    ```

c) Use Case: User logout - invalidates the current session
- Resource(s): sessions
- HTTP Method: DELETE
- Request URL: http://localhost:8080/api/sessions
- Request Body: None
- Response:
```
{
  "message": "Logout successful. Please remove the token from client storage."
}
```

d) Use Case: Try to create listing without authentication token
- Resource(s): listings
- HTTP Method: POST
- Request URL: http://localhost:8080/api/listings
- Request Body:

```
{
  "title": "Test Listing",
  "description": "This should fail",
  "price": 10.00,
  "category": "Textbooks",
  "condition": "Good"
}
```

- Response:

```
{
  "error": "Authentication required"
}
```

e) Use Case: Try to create listing as buyer (wrong role)
- Resource(s): listings
- HTTP Method: POST
- Request URL: http://localhost:8080/api/listings
- Request Body:

```
{
  "title": "Test Listing from Buyer",
  "description": "This should fail",
  "price": 10.00,
  "category": "Textbooks",
  "condition": "Good"
}
```

- Response:

```
{
  "error": "User is not authorized to sell"
}
```

f) Use Case: Create a new listing as authenticated seller
   - Resource(s): listings
   - HTTP Method: POST
   - Request URL: http://localhost:8080/api/listings
   - Request Body:

```
{
  "title": "Calculus Textbook - 8th Edition",
  "description": "Barely used calculus textbook in excellent condition",
  "price": 45.00,
  "category": "Textbooks",
  "condition": "Like New",
  "status": "Published"
}
```

   - Response:

```
{
  "id": "692a226a194999909c33d64c",
  "seller_id": "692a1f49194999909c33d64a",
  "title": "Calculus Textbook - 8th Edition",
  "description": "Barely used calculus textbook in excellent condition",
  "price": 45.0,
  "category": "Textbooks",
  "condition": "Like New",
  "status": "Published",
  "created_at": "2025-11-28T22:30:02.351730",
  "updated_at": "2025-11-28T22:30:02.351736"
}
```

g) Use Case: Update a listing as the owner
   - Resource(s): listings
   - HTTP Method: PATCH
   - Request URL: http://localhost:8080/api/listings/692a226a194999909c33d64c
   - Request Body:

```
{
  "price": 40.00,
  "description": "Barely used calculus textbook in excellent condition - Price reduced!"
}
```

   - Response:

```
{
  "id": "692a226a194999909c33d64c",
  "seller_id": "692a1f49194999909c33d64a",
  "title": "Calculus Textbook - 8th Edition",
  "description": "Barely used calculus textbook in excellent condition - Price reduced!",
  "price": 40.0,
  "category": "Textbooks",
  "condition": "Like New",
  "status": "Published",
  "created_at": "2025-11-28T22:30:02.351730",
  "updated_at": "2025-11-28T22:35:15.123456"
}
```

h) Use Case: Add a photo to a listing
- Resource(s): photos
- HTTP Method: POST
- Request URL:
  http://localhost:8080/api/listings/692a226a194999909c33d64c/photos
- Request Body:
  ```
  {
    "photo_url": "https://example.com/photos/calculus-book-cover.jpg",
    "display_order": 0
  }
  ```
- Response:
  ```
  {
    "id": "692a2345194999909c33d64d",
    "listing_id": "692a226a194999909c33d64c",
    "photo_url": "https://example.com/photos/calculus-book-cover.jpg",
    "uploaded_at": "2025-11-28T22:40:12.456789",
    "display_order": 0
  }
  ```

i) Use Case: Start a chat thread with seller
- Resource(s): threads
- HTTP Method: POST
- Request URL:
  http://localhost:8080/api/listings/692a226a194999909c33d64c/threads
- Request Body: None
- Response:

```
{
  "id": "692a2456194999909c33d64e",
  "listing_id": "692a226a194999909c33d64c",
  "buyer_id": "692a2129194999909c33d64b",
  "seller_id": "692a1f49194999909c33d64a",
  "created_at": "2025-11-28T22:45:30.789012",
  "last_activity_time": "2025-11-28T22:45:30.789012"
}
```

j) Use Case: Get a specific thread as participant
- Resource(s): threads
- HTTP Method: GET
- Request URL: http://localhost:8080/api/threads/692a2456194999909c33d64e
- Request Body: None
- Response:

```
{
  "id": "692a2456194999909c33d64e",
  "listing_id": "692a226a194999909c33d64c",
  "buyer_id": "692a2129194999909c33d64b",
  "seller_id": "692a1f49194999909c33d64a",
  "created_at": "2025-11-28T22:45:30.789012",
  "last_activity_time": "2025-11-28T22:45:30.789012"
}
```

k) Use Case: Get all threads for current authenticated user
- Resource(s): threads
- HTTP Method: GET
- Request URL: http://localhost:8080/api/threads?page=1&per_page=10
- Request Body: None
- Response:

```
{
  "threads": [
    {
      "id": "692a2456194999909c33d64e",
      "listing_id": "692a226a194999909c33d64c",
      "buyer_id": "692a2129194999909c33d64b",
      "seller_id": "692a1f49194999909c33d64a",
      "created_at": "2025-11-28T22:45:30.789012",
      "last_activity_time": "2025-11-28T22:45:30.789012"
    }
  ],
  "page": 1,
  "per_page": 10,
  "total": 1
}
```

I) Use Case: Create a review after transaction
- Resource(s): reviews
- HTTP Method: POST
- Request URL: http://localhost:8080/api/reviews
- Request Body:

```
{
 "listing_id": "692a226a194999909c33d64c",
 "reviewee_id": "692a1f49194999909c33d64a",
 "rating": 5,
 "comment": "Excellent seller! Book was in perfect condition as described."
}
```

- Response:

```
{
 "id": "692a2567194999909c33d64f",
 "listing_id": "692a226a194999909c33d64c",
 "reviewer_id": "692a2129194999909c33d64b",
 "reviewee_id": "692a1f49194999909c33d64a",
 "rating": 5,
 "comment": "Excellent seller! Book was in perfect condition as described.",
 "helpful_count": 0,
 "created_at": "2025-11-28T22:50:45.234567",
 "updated_at": "2025-11-28T22:50:45.234567",
 "is_flagged": false,
 "moderation_status": "Pending"
}
```