IT314
Software Engineering Project

DealsDone

An Online MarketPlace Platform

SPRINTS AND FP ESTIMATION

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SPRINTS FROM PRODUCT BACKLOG

Sprint 1: User Registration and Authentication
- **Features:**
  - User signup and login (email, social login).
  - Role-based access control (buyer, seller).
  - Password recovery and account settings.
  - Basic user profile setup.

- **Deliverable:**
  - Functional registration and login pages.
  - Secure user data storage.
  - User dashboard prototype.

Sprint 2: Product Catalogue and Search
- **Features**:
  - Product listing by sellers.
  - Product categories and tags.
  - Search functionality (filter by categories, price, etc.).
  - Pagination for large catalogues.

- **Deliverables:**
  - Product listing page with search filters.
  - Category structure and navigation.
  - Responsive design implementation.

Sprint 3: Shopping Cart and Checkout Process
- **Features**:
  - Shopping cart with quantity management.
  - Secure checkout process (shipping info, billing info).
  - Integration with payment gateways (e.g., PayPal, Stripe).
  - Order confirmation and history.

- **Deliverables**:
  - Working shopping cart and checkout flow.
  - Integration with payment gateways.
  - Order summary and tracking page.

Sprint 4: Auction System
- **Features**:
  - Sellers can create auction listings.
  - Bidding mechanism for users (automatic bid increments).
  - Auction timers with countdown.
  - Notifications for outbid users and auction end.
  - Build the protocol for the auction system.

- **Deliverables**:
  - Functional auction creation and bidding system.
  - Real-time bidding updates.
  - User notifications for auction activity.

Sprint 5: Order Management and Notifications
- **Features**:
  - Post-purchase order tracking for both standard purchases and auction wins.
  - Automated order processing workflows.
  - Email and in-app notifications for order status updates(tracking).
  - Handling refunds, disputes, and cancellations.
- **Deliverables**:
  - Complete order tracking system.
  - Notification system for order updates.
  - Order management dashboard for sellers and buyers.

Sprint 6: Customer Feedback and Ratings

- **Features**:
  - Product review and rating system.
  - Feedback loop for both standard products and auction items.
  - Seller ratings and reputation management.
  - Displaying feedback and ratings on product and seller profiles.

- **Deliverables**:
  - Fully implemented feedback and rating system.
  - User interface for submitting and viewing reviews.
  - Seller reputation management system.

Sprint 7: Testing, Bug Fixes, and Timely Deployment

- **Features**:
  - Comprehensive testing (unit tests, integration tests, user acceptance tests).
  - Continuous bug tracking and fixing.
  - Performance optimizations and load testing.
  - Final deployment of the platform and post-launch monitoring.

- **Deliverables**:
  - Stable and well-tested platform.
  - Resolved high-priority bugs.
  - Final deployment and monitoring plan for the platform.

FUNCTIONAL POINT ESTIMATION:

Complexity Weighting

- **Low complexity**:
    - EI = 3, EO = 4, ILF = 7, EIF = 5, EQ = 3
- **Average complexity**:
    - EI = 4, EO = 5, ILF = 10, EIF = 7, EQ = 4
- **High complexity**:
    - EI = 6, EO = 7, ILF = 15, EIF = 10, EQ = 6

Sprint 1: User Registration and Authentication

1. **External Inputs (EI)**:
    - User signup and login = 4 (avg complexity)
    - Role-based access control = 4 (avg complexity)
    - Password recovery and account settings = 4 (avg complexity)
2. **External Outputs (EO)**:
    - User dashboard and profile setup = 5 (avg complexity)
3. **Internal Logical Files (ILF)**:
    - User data storage = 10 (avg complexity)

Total Functional Points for Sprint 1:

- **EI**: 4 + 4 + 4 = 12
- **EO**: 5
- **ILF**: 10
- **Total FP**: 12 + 5 + 10 = **27 FP**

Sprint 2: Product Catalogue and Search

1. **External Inputs (EI)**:
   - Product listing by sellers = 6 (high complexity)
   - Product categories and tags = 4 (avg complexity)
2. **External Outputs (EO)**:
   - Product search results and filters = 5 (avg complexity)
   - Pagination for large catalogues = 5 (avg complexity)
3. **Internal Logical Files (ILF)**:
   - Product data storage = 10 (avg complexity)

Total Functional Points for Sprint 2:

- **EI**: 6 + 4 = 10
- **EO**: 5 + 5 = 10
- **ILF**: 10
- **Total FP**: 10 + 10 + 10 = **30 FP**

Sprint 3: Shopping Cart and Checkout Process

1. **External Inputs (EI)**:
   - Shopping cart management = 6 (high complexity)
   - Checkout process (billing and shipping info) = 6(high complexity)
2. **External Outputs (EO)**:
   - Order confirmation and history = 5 (avg complexity)
3. **Internal Logical Files (ILF)**:
   - Order data storage = 10 (avg complexity)
4. **External Interface Files (EIF)**:
   - Payment gateway integration = 10 (high complexity)

Total Functional Points for Sprint 3:

- **EI**: 6 + 6 = 12
- **EO**: 5
- **ILF**: 10
- **EIF**: 10
- **Total FP**: 12 + 5 + 10 + 10 = **37 FP**

Sprint 4: Auction System

1. **External Inputs (EI)**:
   - Auction listing creation = 4 (avg complexity)
   - Bidding mechanism (real-time bidding) = 6 (high complexity)
2. **External Outputs (EO)**:
   - Auction updates (timers, real-time bidding updates) = 7 (high complexity)
   - Notifications for outbid users and auction end = 5 (avg complexity)
3. **Internal Logical Files (ILF)**:
   - Auction data storage = 10 (avg complexity)

Total Functional Points for Sprint 4:

- **EI**: 4 + 6 = 10
- **EO**: 7 + 5 = 12
- **ILF**: 10
- **Total FP**: 10 + 12 + 10 = **32 FP**

Sprint 5: Order Management and Notifications

1. **External Inputs (EI)**:
   - Order tracking and management = 6 (high complexity)
   - Handling refunds, disputes, cancellations = 4 (avg complexity)
2. **External Outputs (EO)**:
   - Email and in-app notifications for order updates = 5 (avg complexity)
3. **Internal Logical Files (ILF)**:
   - Order and tracking data storage = 10 (avg complexity)

Total Functional Points for Sprint 5:

- **EI**: 6 + 4 = 10
- **EO**: 5

- **ILF**: 10
- **Total FP**: 10 + 5 + 10 = **25 FP**

Sprint 6: Customer Feedback and Ratings

1. **External Inputs (EI)**:
   - Product reviews and ratings input = 4 (avg complexity)
2. **External Outputs (EO)**:
   - Display feedback and ratings on product = 5 (avg complexity)
3. **Internal Logical Files (ILF)**:
   - Feedback and ratings data storage = 10 (avg complexity)

Total Functional Points for Sprint 6:

- **EI**: 4
- **EO**: 5
- **ILF**: 10
- **Total FP**: 4 + 5 + 10 = **19 FP**

Sprint 7: Testing, Bug Fixes and Deployment

1. **External Inputs (EI)**:
   - Bug tracking and fixes = 6 (high complexity)
   - Post-launch monitoring = 6 (high complexity)
2. **External Outputs (EO)**:
   - Final deployment status reports and monitoring = 5 (avg complexity)
3. **Internal Logical Files (ILF)**:
   - Test case management and logs = 10 (avg complexity)

Total Functional Points for Sprint 7:

- **EI**: 6 + 6= 12
- **EO**: 5
- **ILF**: 10
- **Total FP**: 12 + 5 + 10 = **27 FP**

TIME ESTIMATION FROM FUNCTION POINT

Sprints	Functional Points	No. of weeks
User Registration and Authentication	27	1
Product Catalog and Search	30	2
Shopping Cart and Checkout Process	37	2
Auction System	32	2
Order Management and Notifications	25	1
Customer Feedback and Ratings	19	1
Testing, Bug Fixes and Deployment	27	1
Total	**197 FP**	**10 Weeks**