IT314 -Software Engineering Project

LAB 3: TASK-3

Sprints and Effort Estimation

Group-2

GROUP MEMBERS:

ID	NAME
202201035	HARSH GOPALBHAI VASHIYAR
202201038	MAHAMMED JAMI
202201039	ROHIN GHANSHYAM SOLANKI
202201053	SANIA PATEL
202201056	ARYANKUMAR PANCHASARA
202201071	NIRVA AMITKUMAR PATEL
202201081	RABADIYA UTSAV MAHESHBHAI
202201082	ZINZUVADIA ZENITH MEHUL
202201087	SAVALIYA ISHAN ARVINDBHAI
202201100	GALCHAR RAHULKUMAR

TASK 3A: SPRINTS

Sprint 1: Buyer and Seller Authentication and Registration

Objective: This feature aims to ensure that users integrity is maintained through secure strategies.

Sprint detail : Set up secure user profiles and authentication processes for buyers and sellers, with admin oversight for profile approval.

Duration: 1 week

- **Buyer:** Create a profile; in case the user is on the login page, the page turns to the main site.
- **Seller:** Create a profile; Login page; Write detail concerning the product.
- **Admin:** Approve or disapprove the bags whose profiles have been reviewed

Sprint 2: Search and View Functionality for Unregistered Users

Objective: Provide a seamless user experience.

Sprint detail : Enable unregistered users to search for and view products with filter and sort options, and display auction information.

Duration: 1-1.5 week

- **Admin:** Apply the product search and view it capability; Filter and sort options to be included.
- **Admin:** Put up information concerning some of the auctions.

Sprint 3: Live auction/Bidding

Objective: Make auction functions available for the users

Sprint detail : Implement live auction and bidding features, including auction management for sellers and bidding capabilities for buyers, with admin controls for pricing and timing.

Duration: 2-3 week

- **Seller:** Prepare time and initiate auctions; Determine the reserve price.
- **Buyer:** Make the auctions by bidding on the goods.
- **Admin:** Bring controls with the factors of raising the price; Control with the timing; Add foreign exchange functionality (default is displaying the bidding amount in the currency of the seller's country).
- **Seller:** Discover the profiles of the participants.

Sprint 4: Auction Completion

Objective: To initiate post auction process

Sprint detail : Finalize auctions by notifying winners, setting final prices, facilitating contact exchange, and processing buyer payments.

Duration: 1 week

- **Admin:** Inform both the buyers and the sellers who was the highest bidder; End the auction and fix the price for the goods; Lend the contact between buyers and the sellers.
- **Buyer:** Make payment through the payment processor.

Sprint 5: Feedback System

Objective: To develop feedback that makes the user more satisfied with the application.

Sprint detail : Develop a feedback system for buyers and sellers to share and respond to experiences, with admin moderation to ensure professionalism.

Duration: 1 week

- **Buyers:** Give feedback on their experience.

- **Sellers**: Give feedback and reply to those who have given feedback.
- **Admin:** Makes sure that no one disparages any feedback, and that all feedback that is directed to them is dignified and professional in nature.

Sprint 6: Payment System

Objective: Ensure all transactions are safe.

Sprint detail : Ensure secure transaction processing, invoice generation, and payment notifications for both buyers and sellers

Duration: 1-2 week

- **Admin**: Process buyer payment; Create invoices for payments; Notify sellers and buyers about the payment.
- **Buyer:** Make payment for the goods.

Sprint 7: Maintain History

Objective: Keep all the relevant information in a structured way so that it can be referenced.

Sprint detail : Organize and provide access to auction and purchase history for buyers and sellers, with administrative oversight of records.

Duration: 1-2 week

- **Admin**: Provide the records of auctioning results.
- **Seller:** Information on definition history will be available in the dashboard.
- **Buyer**: Information on purchase history will be accessible.

Sprint 8: Integration and Testing

Objective: test all the functions as an whole

Sprint detail : Integrate all functionalities, perform comprehensive testing to ensure system stability, and assess performance.

Duration: 1 week

- Join together all of the functionalities related to the buyers, sellers and admins.
- Test the systems in general to check system stability as well as corrupted data to test the performance of the system.

TASK 3B: FUNCTIONAL POINT ESTIMATION

Complexity Factor

Complexity Factor	Rating (0-5)
Backup and Recovery	3
Data Communication	2
Distributed Processing Functions	3
Is Performance critical?	5
Existing Operating Environment	2
On-Line Data Entry	3
Input Transaction bit over multiple screens	3
Master files updated On-Line	4
Complexity of Inputs,Outputs,Files,Inquiries	4
Complexity of Processing	4
Code Design for Re-use	3
Are conversions/installation included in design	1
Multiple Installations	2
Application Designed to facilitate change by the user	3
ΣFi	**42**

Adjusted Functional Points : AFPC = 0.65 + (ΣFi / 100) ,

where ΣFi = Sum of ratings of each characteristic

Adjusted Functional Points (AFPC) = UFPC * {0.65 + (42/100)}

UFPC is calculated for each case below:

1. Sprint 1: Buyer and Seller Authentication and Registration

Functionality	**Type**	**Complexity**	**FP**
Buyer Profile Creation	External Input (EI)	Low	3
Seller Profile Creation	External Input (EI)	Low	3
Login Page	External Output (EO)	Low	4
Write Product Details (Seller)	External Input (EI)	Average	4
Admin Review and Approval	External Inquiry (EQ)	Average	3
Profile Status Update	Internal Logical File (ILF)	Low	7
Unadjusted Functional Points (UFPC)			**24**

(AFPC) = UFPC * {0.65 + (42/100)} = 24*{0.65 + (42/100)}
= **25.68**

2. Sprint 2: Search and View Functionality for Unregistered Users

Functionality	**Type**	**Complexity**	**FP**
Product Search for Unregistered Users	External Input (EI)	Average	4
View Product Details for Unregistered Users	External Output (EO)	Low	4
Filter Options for Search Results	External Input (EI)	Average	4
Sort Options for Search Results	External Input (EI)	Low	3

Display Auction Information	External Output (EO)	Average	5
Admin Setup for Search and View	Internal Logical File (ILF)	Low	7
Admin Posting Auction Information	External Input (EI)	Average	4
Unadjusted Functional Points (UFPC)			**31**

AFPC = UFPC * {0.65 + (42/100)} = 31*{0.65 + (42/100)}
= **33.17**

3. Sprint 3: Live Auction/Bidding

Functionality	**Type**	**Complexity**	**FP**
Prepare Time and Initiate Auctions (Seller)	External Input (EI)	Average	5
Determine Reserve Price (Seller)	External Input (EI)	Low	3
Make Bids (Buyer)	External Input (EI)	Average	5
View Participant Profiles (Seller)	External Inquiry (EQ)	Low	3
Admin Controls for Pricing	Internal Logical File (ILF)	Average	5
Admin Controls for Timing	Internal Logical File (ILF)	Average	5
Foreign Exchange Functionality	External Output (EO)	High	7
Unadjusted Functional Points (UFPC)			**36**

AFPC = UFPC * {0.65 + (42/100)} = 36*{0.65 + (42/100)}
= **38.52**

4. Sprint 4: Auction Completion

Functionality	**Type**	**Complexity**	**FP**
Notify Winners and Sellers (Admin)	External Output (EO)	Average	5
End Auction and Fix Final Prices (Admin)	Internal Logical File (ILF)	Average	6
Facilitate Contact Exchange (Admin)	External Output (EO)	Average	5
Process Payment (Buyer)	External Input (EI)	Average	6
Unadjusted Functional Points (UFPC)			**22**

AFPC = UFPC * {0.65 + (42/100)} = 22*{0.65 + (42/100)}
= **23.54**

5. Sprint 5: Feedback System

Functionality	**Type**	**Complexity**	**FP**
Give Feedback on Experience (Buyers)	External Input (EI)	Average	4
Give Feedback and Reply (Sellers)	External Input (EI) and External Output (EO)	Average	5
Admin Moderation of Feedback	Internal Logical File (ILF)	High	7
Unadjusted Functional Points (UFPC)			**16**

AFPC = UFPC * {0.65 + (42/100)} = 16*{0.65 + (42/100)}
= **17.12**

6. Sprint 6: Payment System

Functionality	**Type**	**Complexity**	**FP**
Process Buyer Payment	External Input (EI)	Average	4
Generate Invoices	External Output (EO)	High	7
Notify Sellers and Buyers about the Payment	External Output (EO)	Average	5
Payment Status Inquiry	External Inquiry (EQ)	Low	3
Maintain Transaction Records	Internal Logical File (ILF)	Average	7
Unadjusted Functional Points (UFPC)			**26**

AFPC = UFPC * {0.65 + (42/100)} = 26*{0.65 + (42/100)}
= **27.82**

7. Sprint 7: Maintain History

Functionality	**Type**	**Complexity**	**FP**
Provide Auction Results Records (Admin)	Internal Logical File (ILF)	Average	6
Seller's Auction History Dashboard	External Output (EO)	Average	5
Buyer's Purchase History Access	External Output (EO)	Average	5
Unadjusted Functional Points (UFPC)			**16**

AFPC = UFPC * {0.65 + (42/100)} = 16*{0.65 + (42/100)}
= **17.12**

8. Sprint 8: Integration and Testing

Functionality	**Type**	**Complexity**	**FP**
Integrate All Functionalities	External Input (EI)	High	6
Perform Comprehensive Testing	External Input (EI)	High	6
Generate Test Reports	External Output (EO)	Average	5
Test Status and Error Inquiry	External Inquiry (EQ)	Average	4
Unadjusted Functional Points (UFPC)			**21**

AFPC = UFPC * {0.65 + (42/100)} = 21*{0.65 + (42/100)}

= **22.47**