(G3) SRA for Auction Site

Suryaansh Jain, Rishit D, Rajiv Chitale, Anshul Sangrame

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Function Point Analysis

The Unadjusted Function Point (UFP) is calculated as follows:

UFP = $\sum_{i=1}^{5} \sum_{j=1}^{3} w_{ij} c_{ij}$
w_{ij}: Weight for a type of function
c_{ij}: Number of function of that type

The matrix given below contains weights used for FPA.

	Low	Avg	High
External Input (EI)	3	4	6
External Output (EO)	4	5	7
Logical Internal File (LIF)	7	10	15
External Interface File (EIF)	5	7	10
External Inquiry (EQ)	3	4	6

Table below gives the description of each component and its type, complexity and weight.

Component	Description	Type	Complexity	Weight
Sign Up	Set name, username, password, contacts, interests	EI	Avg	4
Log In	Direct user to dashboard given correct credentials	EQ	Low	3
Edit Profile	Allows user to edit details of profile	EI	Avg	4
Forgot Password	Allows user to reset password through contacts	EI	Low	3
Create Auction	List items + clauses and schedule auction time	EI	High	6
Recommendations	Provides user with auctions user might be interested in	EO	Avg	5
Search Options	Allows user to search by tags, description, time, price	EQ	High	6
View History	Allows user to view completed and scheduled auctions	EO	Avg	5
View Other Profile	Allows user to view profiles of other users	EQ	Avg	4
Add Auction Items	Allows auctioneer to add items for auction	EI	Avg	4
Enter Auction	Allows user to join auction room	EO	High	7
Make Bid	Allows bidder to specify a price	EI	Low	3
Complete Auction	Server selects and notifies the winner	EO	Avg	5
Exit Auction	Allows user to exit auction room	EI	Low	3
Users File	Contains user login details	LIF	Low	5
Profile File	Contains user profile and interests	LIF	Low	5

Component	Description	Type	Complexity	Weight
Auction Data File	Contains auction data and settings	LIF	Avg	10
Auction Items File	Contains description for auction items	LIF	Avg	10

UPF = 96

The Complexity Adjustment Factor (CAF) is calculated as follows:
CAF = 0.65 + 0.01 * $\sum_{i=1}^{14} f_i$

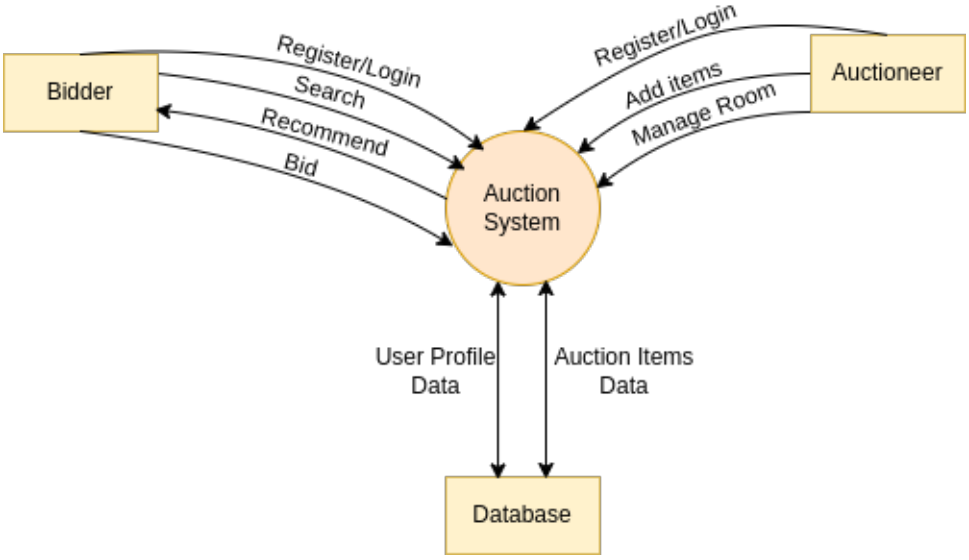
Index	Property	Score
1	Reliable backup/recovery	4
2	Data communication	5
3	Distributed processing	1
4	Performance critical	2
5	Existing operational environment	1
6	Online data entry	5
7	Input over multiple screens	3
8	Master files updated online	4
9	Complexity of data	2
10	Complexity of processing	2
11	Reusability	2
12	Installation included	3
13	Multiple installation targets	2
14	Ease of use, change	3

CAF = 0.65 + 0.01 * 39
CAF = 1.04

The Adjusted Function Points (FP) are calculated below: FP = UFP * CAF
FP = 96 * 1.04
FP = 99.84

Context Diagram

A high level overview of the system is shown:



Data Flow Diagram

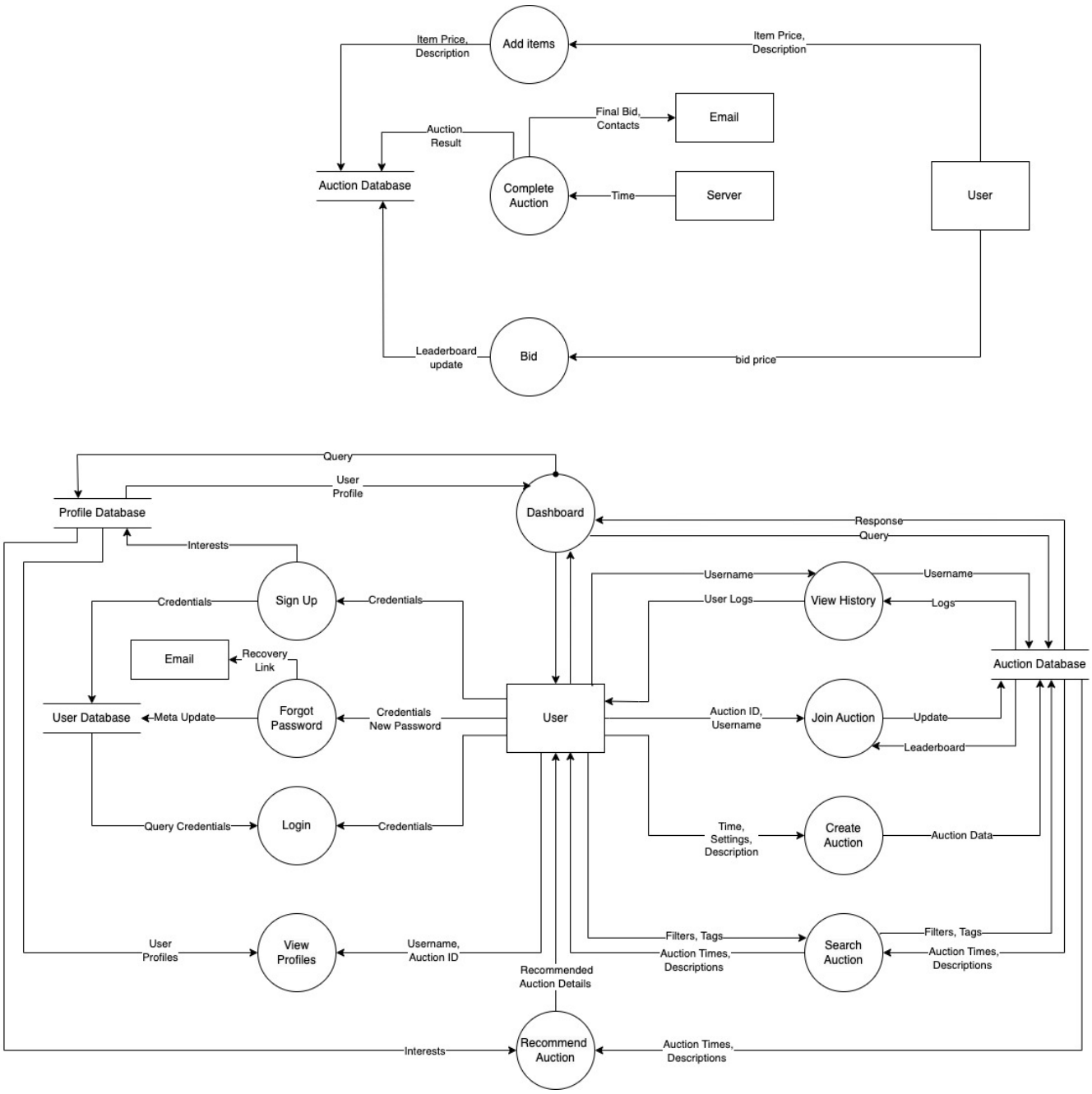


Figure 1: Data Flow Diagram