System Size

Function Point Estimation

Functionality	Input	Output	Queries	File	Program interface
Sign up	1	0	1	1	0
Log in	1	0	1	1	0
Check Profile	1	0	1	1	0
Search	1	1	1	2	0
View Goods (including real time price-refresh)	1	1	1	2	0
Post Goods	1	0	2	1	0
Bid	1	1	1	1	0
Q&A for Product	1	1	1	1	0
Pay	1	0	1	1	1
Receive Money	1	0	1	1	1
Take Commission	0	0	0	1	1
Record Transaction History	0	0	0	3	0

Description	Complexity				
	Total #	Low	Medium	High	Total
Inputs	**10**	6***3**	2***4**	2***6**	38
Outputs	**4**	0***4**	2***5**	2***7**	24
Queries	**11**	5***7**	5***10**	1***15**	100
Files	**16**	8***7**	6***10**	2***15**	146
Program interface	**3**	0***5**	3***7**	0***10**	21
Total Unadjusted Function Point (TUFP) =					329

The total processing complexity (PC):-

Tasks	Complexity
Data communication	2
Team cohesion	1
Familiarity with technology	3
On-line data entry	3
Total Processing Complexity (TPC)=	9

- **The adjusted processing complexity (APC):-**
  APC=0.65 + (0.01 * TPC)
  APC=0.65 + (0.01 * 9)= 0.74

- **The total adjusted function points (TAFP):-**
  TAFP=TUFP * APC
  TAFP= 329*0.74= 243.46

- **Converting Function Points to Line Of Code (LOC):-**

Language/Tool	Number of LOC / FP
JavaScript	62
HTML	100
Python	167

Just an Example Reference

- 18.8% will be done in JavaScript
- 30.4% will be done in HTML
- 50.8% will be done in Python

- **Number of lines of code (LOC)= TAFP * # of(LOC\FP) * %**
  For JavaScript = (243.46) *(70)*(18.8/100) = 3203.93 LOC

  For HTML = (243.46) *(15)*(30.4/100) = 1110.18 LOC
  For Python = (243.46) *(50)*(50.8/100) = 6183.88 LOC
  So the total LOC=10498 LOC

- **Estimating the effort:-**
  Effort = 2.4 * (LOC/1000)^1.05
  =2.4 * (10498/1000)^1.05
  =28.34 person month

- **Estimating the schedule time:-**

  Time $= 2.5 * (effort)^{0.38}$

  $= 2.5 * (28.34)^{0.38}$

  $= 8.91$ months

- **Estimating the number of persons:-**

  average of # of persons = effort/time

  $= 28.34 / 8.91$

  $= 3.18$ persons