COCOMO Analysis for Travel Agency Site

Online Tool :

Functional Requirements

Number of user inputs:

1. Clients
2. Agents
3. Geographical Documents
4. Registered Users
5. Brochure
6. Templates
7. Journals
8. Links
9. Login id
10. Password
11. Aviation/Railway/Hotel Reservations
12. Holiday/Senior Citizen Offers

Number of user outputs

1. Ticket Details
2. Seats Available
3. Reservation Status
4. Discount
5. Arrival/Departure Place/Timings
6. Places to visit

Number of user inquiries

1. Bookings
2. Status
3. User details
4. Offers provided
5. Homepage
6. Details page
7. Administration page

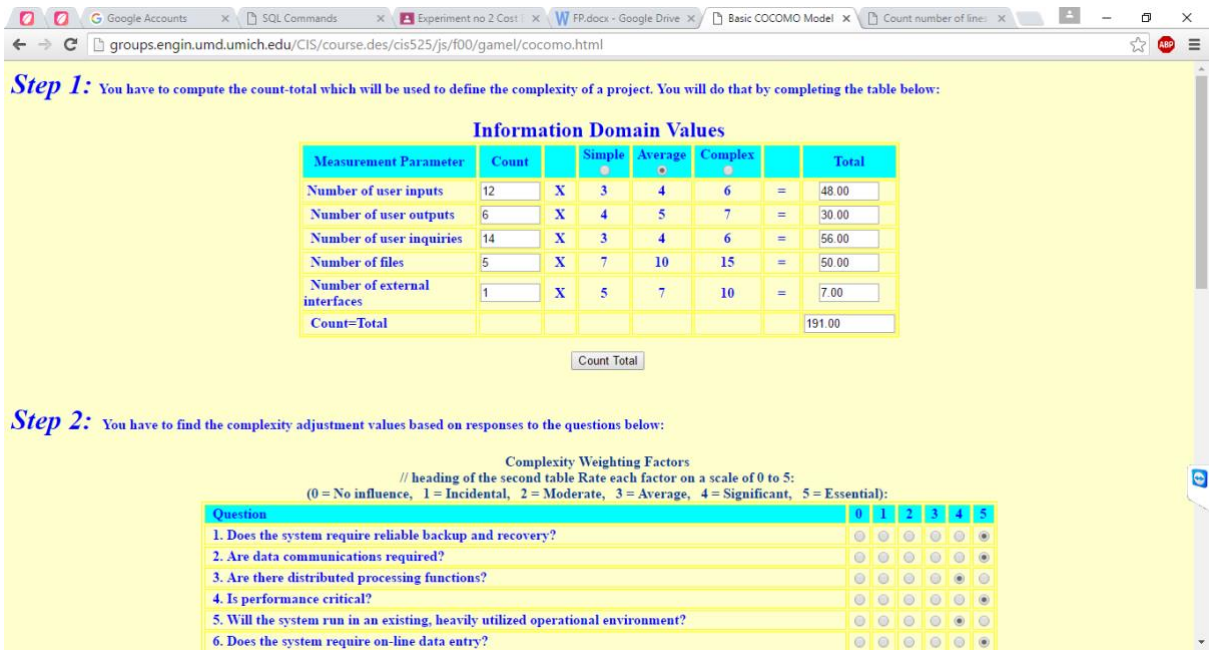
8. Reservation Page
9. Maps/Trajectory
10. Gallery Page
11. Search
12. Help
13. Logout
14. Report

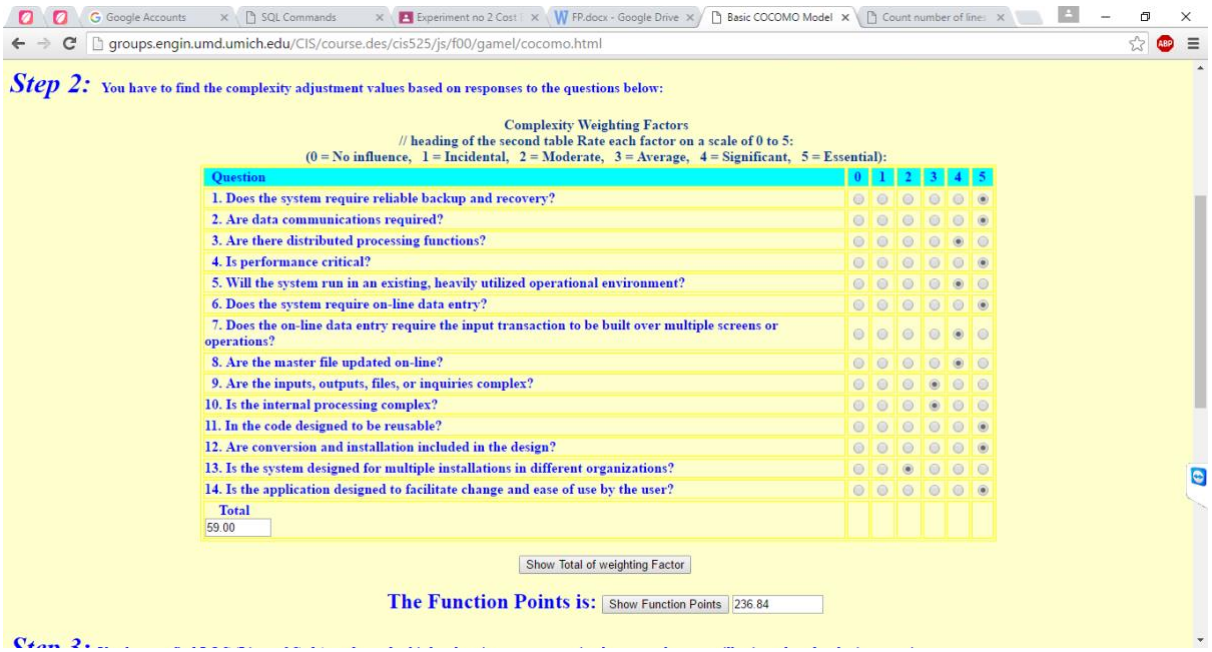
Number Of files

1. Administration Data
2. User Accounts
3. Agent Details
4. Mode of Transport Data
5. Reservation Data

Number of External Interfaces

1. Web Resources





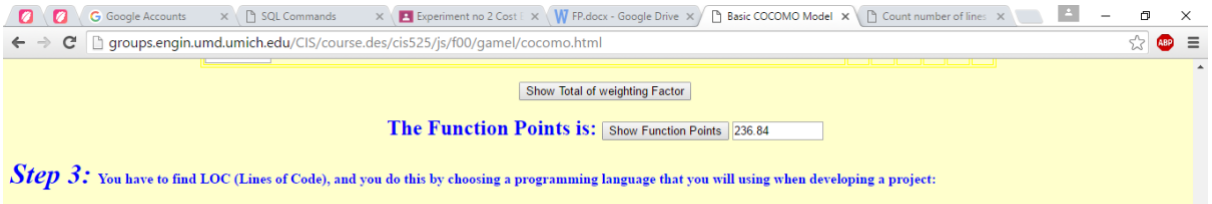
Step 2: **You have to find the complexity adjustment values based on responses to the questions below:**

Complexity Weighting Factors
// heading of the second table Rate each factor on a scale of 0 to 5:
(0 = No influence, 1 = Incidental, 2 = Moderate, 3 = Average, 4 = Significant, 5 = Essential):

Question	0	1	2	3	4	5
1. Does the system require reliable backup and recovery?	○	○	○	○	○	◉
2. Are data communications required?	○	○	○	○	○	◉
3. Are there distributed processing functions?	○	○	○	○	◉	○
4. Is performance critical?	○	○	○	○	○	◉
5. Will the system run in an existing, heavily utilized operational environment?	○	○	○	○	◉	○
6. Does the system require on-line data entry?	○	○	○	○	○	◉
7. Does the on-line data entry require the input transaction to be built over multiple screens or operations?	○	○	○	○	◉	○
8. Are the master file updated on-line?	○	○	○	○	◉	○
9. Are the inputs, outputs, files, or inquiries complex?	○	○	○	◉	○	○
10. Is the internal processing complex?	○	○	○	◉	○	○
11. In the code designed to be reusable?	○	○	○	○	○	◉
12. Are conversion and installation included in the design?	○	○	○	○	○	◉
13. Is the system designed for multiple installations in different organizations?	○	○	◉	○	○	○
14. Is the application designed to facilitate change and ease of use by the user?	○	○	○	○	○	◉
Total 59.00						

Show Total of weighting Factor

The Function Points is: Show Function Points 236.84



Show Total of weighting Factor

The Function Points is: Show Function Points 236.84

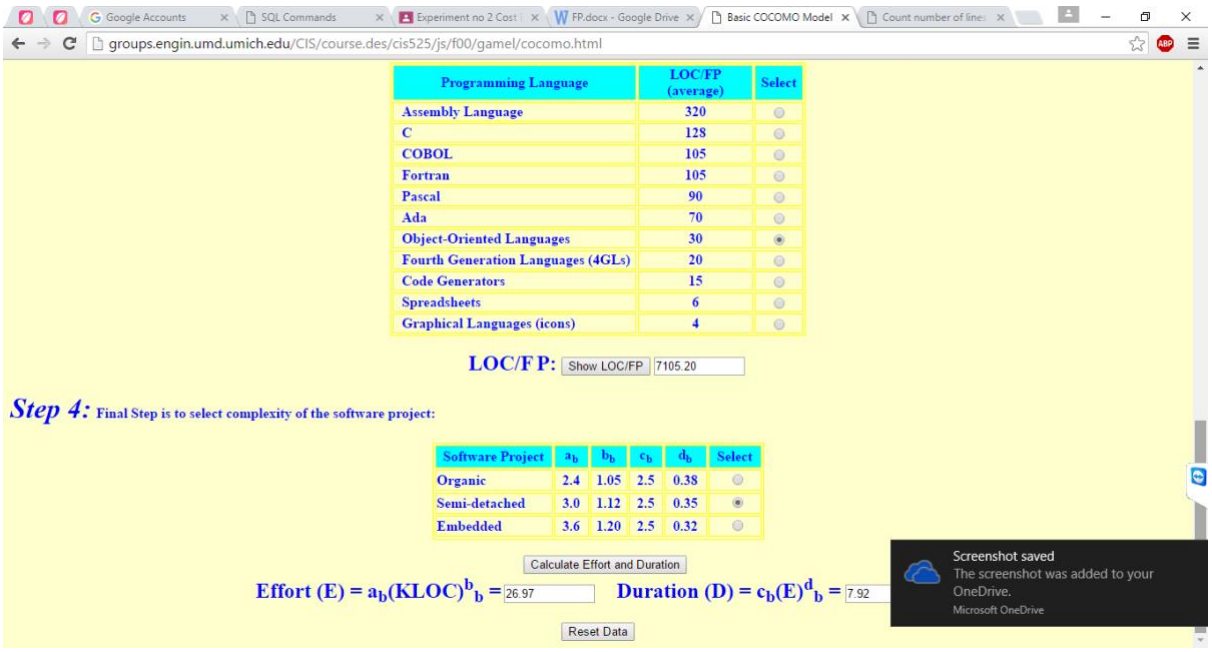
Step 3: **You have to find LOC (Lines of Code), and you do this by choosing a programming language that you will using when developing a project:**

Programming Language	LOC/FP (average)	Select
Assembly Language	320	○
C	128	○
COBOL	105	○
Fortran	105	○
Pascal	90	○
Ada	70	○
Object-Oriented Languages	30	◉
Fourth Generation Languages (4GLs)	20	○
Code Generators	15	○
Spreadsheets	6	○
Graphical Languages (icons)	4	○

LOC/F P: Show LOC/FP 7105.20

Step 4: **Final Step is to select complexity of the software project:**

Software Project	a_b	b_b	c_b	d_b	Select
Organic	2.4	1.05	2.5	0.38	○

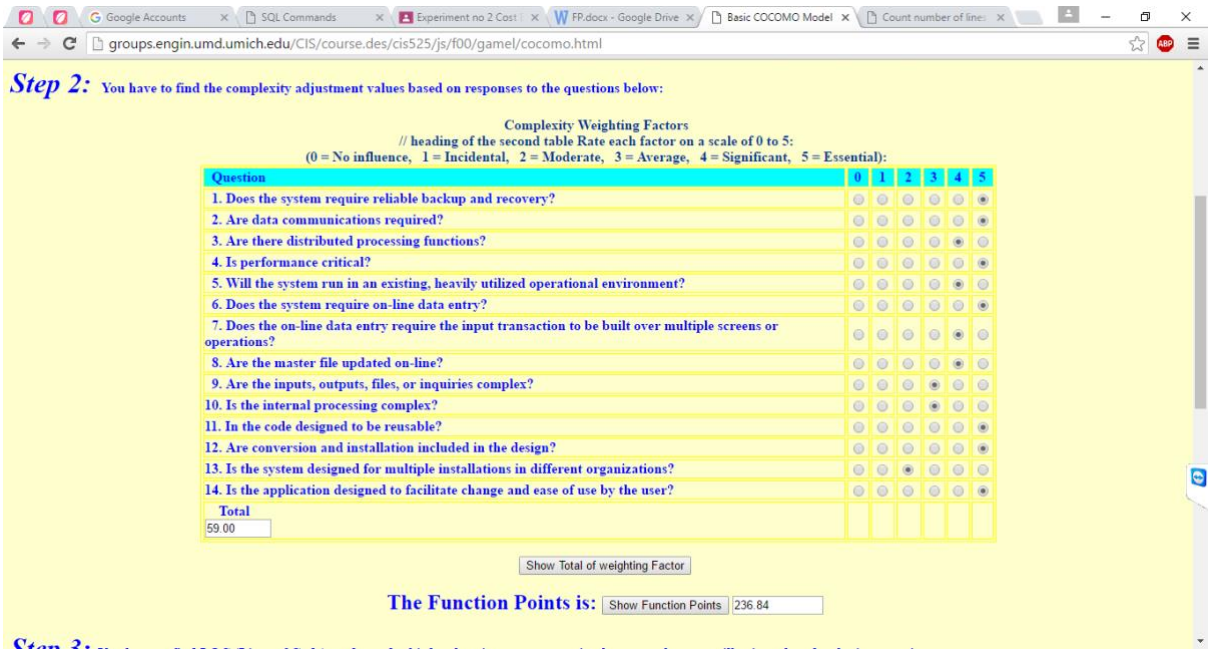

Google Accounts
SQL Commands
Experiment no 2 Cost
FP.docx - Google Drive
Basic COCOMO Model
Count number of lines
groups.engin.umd.umich.edu/CIS/course.des/cis525/js/f00/gamel/cocomo.html
Programming Language
LOC/FP (average)
Select
Assembly Language 320
C 128
COBOL 105
Fortran 105
Pascal 90
Ada 70
Object-Oriented Languages 30
Fourth Generation Languages (4GLs) 20
Code Generators 15
Spreadsheets 6
Graphical Languages (icons) 4
LOC/F P: Show LOC/FP 7105.20
Step 4: Final Step is to select complexity of the software project:
Software Project
a_b
b_b
c_b
d_b
Select
Organic 2.4 1.05 2.5 0.38
Semi-detached 3.0 1.12 2.5 0.35
Embedded 3.6 1.20 2.5 0.32
Calculate Effort and Duration
Effort (E) = $a_b(KLOC)^{b}_{b}$ = 26.97
Duration (D) = $c_b(E)^{d}_{b}$ = 7.92
Reset Data
Screenshot saved
The screenshot was added to your OneDrive.
Microsoft OneDrive

Manual Calculation –

Function Point:

Measurement Parameter	Count	Weighting Factor			FP Count
		Simple	Average	Complex	
No of user inputs	12	3	4	6	48
No of user outputs	6	4	5	7	30
No of user inquiries	14	3	4	6	56
No of files	5	7	10	15	50
No of external interfaces	1	5	7	10	7

Count total ⟶ **191**



$\sum F_i = 59$

Formula for Calculation

FP= Count total*[0.65+0.01*$\sum F_i$]

LOC (Lines of code) :

After some further requirements analysis and specification, the following major software functions are identified:

1. User Interface and Control Facilities (UICF)
2. Reservation Analysis (RA)
3. Status Analysis (SA)
4. Database Management (DBM)
5. Ticket Display (TD)
6. Arrival/Departure Analysis (ADA)

Function	**Estimated LOC**
UICF	1024
RA	1132
SA	1240
DBM	1608
TD	1006
ADA	1096
Total Estimated LOC	**7106**

Thus the LOC estimate for this Project :

7106/703 = 10 person months