



IT314 - Software Engineering

Lab 3 - Task 3

Group 25 - Portfolio Management

INVESTALYZE

202201402 - TWISHA KAMLESHKUMAR PATEL

202201435 - KARIA ABHIMANYU

202201411 - PATEL DHARUVIL HASMUKHBHAI

202201459 - ALIN KANSAGRA

202201457 - KALP HARDIK SHAH

202201460 - PATEL SHREYA KIRTIBHAI

202201420 - AARYA RAKESHKUMAR JAVIA

202201406 - PRINCE MAHESHBHAI MAKWANA

202201414 - BHOOMISH PATEL

202201438 - ABHISHEK ABBI

Sprint Details

❖ Complexity Factor:

Complexity Factor	Value
Heavy Use Configuration	1
Data Communication	2
Distributed Processing Function	1
Performance	2
End User Efficiency	2
Online Data Entry	2
Transaction Rate	3
Operation Ease	1
Complexity of UI	3
Complexity of Processing	1
Reusability	1
Installation	1
Supportability	0
Training Required	0
ΣF_i	20

Complexity Factor Calculation:

- Complexity Factor (CF) = $0.65 + 0.01 * \Sigma F_i$
- $CF = 0.65 + 0.01 * 20$
- $CF = 0.65 + 0.2$
- $CF = 0.85$

❖ Sprints for Portfolio Management

★ Sprint 1: Core UI/UX and User Profiles

Focus: Develop the user interface, including a login/sign-in page, user profiles, and a basic portfolio overview with viewing and editing capabilities.

Unadjusted Function Point:

Parameter	Value	Weighing Factor	Weighted Value
External Input (EI):			
User login form	2	3	6
User registration form	2	3	6
Profile editing form	2	3	6
External Output (EO):			
Profile display page	2	4	8
External Query (EQ):			
Profile search query	1	3	3
Internal Logic Files (ILF):			
User profile data	2	7	14
External Interface Files (EIF):			
Email verification system	1	5	5
Unadjusted Function Point (UFP)			36
Adjusted Function Point			30.6
Total Estimated Time			240 hrs
Estimated Time			2 weeks

Adjusted Function Point:

Adjusted Function Point = UFP * CF = 36 * 0.85 = 30.6

- Hours required per FP = 8 hrs
- Total Estimated Time (Hours) = 30.6 * 8 = 244.8 ≈ 240 hrs
- Estimated Time: 2 weeks

★ Sprint 2: Admin Features and Portfolio Management

Focus: Implement admin functionalities including user management, portfolio management, and basic admin settings.

Unadjusted Function Point:

Parameter	Value	Weighing Factor	Weighted Value
External Input (EI):			
User management form	3	4	12
Portfolio management form	3	4	12
Admin settings form	3	4	12
External Output (EO):			
User management display	2	5	10
Portfolio display	2	5	10
External Query (EQ):			
User search query	2	4	8
Portfolio search query	2	4	8
Internal Logic Files (ILF):			
User data	3	7	21
Portfolio data	3	7	21

External Interface Files (EIF):			
Admin interface	2	5	10
Portfolio integration	2	5	10
Unadjusted Function Point (UFP)			61
Adjusted Function Point			51.85
Total Estimated Time			410 hrs
Estimated Time			2.5 weeks

Adjusted Function Point:

- Adjusted Function Point = UFP * CF = 61 * 0.85 = 51.85
- Hours required per FP = 8 hrs
- Total Estimated Time (Hours) = 51.85 * 8 = 414.8 ≈ 410 hrs
- Estimated Time: 2.5 weeks

★ Sprint 3: Machine Learning Integration

Focus: Develop machine learning models for portfolio predictions and integrate them into the system.

Unadjusted Function Point:

Parameter	Value	Weighing Factor	Weighted Value
External Input (EI):			
ML model input form	2	3	6
Portfolio prediction request	2	3	6
External Output (EO):			
ML prediction results	2	4	8
External Query (EQ):			

Prediction query	2	3	6
Internal Logic Files (ILF):			
ML model data	3	7	21
External Interface Files (EIF):			
Model integration	2	5	10
Unadjusted Function Point (UFP)			51
Adjusted Function Point			43.35
Total Estimated Time			340 hrs
Estimated Time			2.5 weeks

Adjusted Function Point:

- Adjusted Function Point = UFP * CF = 51 * 0.85 = 43.35
- Hours required per FP = 8 hrs
- Total Estimated Time (Hours) = 43.35 * 8 = 346.8 ≈ 340 hrs
- Estimated Time: 2.5 weeks

★ Sprint 4: Status Tracking, Reports, and Analytics

Focus: Implement portfolio status tracking, generate reports, and add analytics features for detailed insights.

Unadjusted Function Point:

Parameter	Value	Weighing Factor	Weighted Value
External Input (EI):			
Status tracking input form	3	4	12
Report generation form	2	5	10
Analytics configuration form	2	4	8

External Output (EO):			
Status reports display	2	5	10
Analytics results display	2	5	10
External Query (EQ):			
Status query	2	4	8
Report query	2	4	8
Internal Logic Files (ILF):			
Status data	4	7	28
Report data	4	7	28
External Interface Files (EIF):			
Analytics interface	2	5	10
Unadjusted Function Point (UFP)			73
Adjusted Function Point			62.05
Total Estimated Time			490 hrs
Estimated Time			3 weeks

Adjusted Function Point:

- Adjusted Function Point = UFP * CF = 73 * 0.85 = 62.05
- Hours required per FP = 8 hrs
- Total Estimated Time (Hours) = 62.05 * 8 = 496.4 ≈ 490 hrs
- Estimated Time: 3 weeks

★ Sprint 5: Final Touches and Testing

Focus: Refine the UI/UX, integrate all features, conduct thorough testing, and prepare for deployment.

Unadjusted Function Point:

Parameter	Value	Weighing Factor	Weighted Value
External Input (EI):			
UI refinement form	2	3	6
Final testing form	2	3	6
External Output (EO):			
Final report display	2	4	8
External Query (EQ):			
Testing feedback query	2	3	6
Internal Logic Files (ILF):			
Testing data	3	7	21
External Interface Files (EIF):			
Integration testing	2	5	10
Unadjusted Function Point (UFP)			51
Adjusted Function Point			43.35
Total Estimated Time			340 hrs
Estimated Time			1 weeks

Adjusted Function Point:

- Adjusted Function Point = $UFP * CF = 51 * 0.85 = 43.35$
 - Hours required per FP = 8 hrs
 - Total Estimated Time (Hours) = $43.35 * 8 = 346.8 \approx 340$ hrs
 - Estimated Time: 1 week
-

Summary of Estimated Time:

- Sprint 1 (Core UI/UX and User Profiles): 2 weeks
- Sprint 2 (Admin Features and Portfolio Management): 2.5 weeks
- Sprint 3 (Machine Learning Integration): 2.5 weeks
- Sprint 4 (Status Tracking, Reports, and Analytics): 3 weeks
- Sprint 5 (Final Touches and Testing): 1 week

Total Estimated Time: 10 weeks