Task		Optimistic Hour	Realistic Hour
Preliminary Work			
PW1. Team Introduction		1	2
PW2. Architectural Design		5	8
PW3. Technical Documentation		8	12
Machine Learning & AI Module - Data Processing			
DP1. Preprocess datasets		10	12
DP2. Implement image processing pipeline		15	20
Machine Learning & AI Module - Model Training			
MT1. Train deep learning models		20	30
MT2. Develop disease detection algorithms		25	35
Machine Learning & AI Module - Model Evaluation			
ME1. Evaluate model performance		8	10
ME2. Benchmark AI models		10	12
Machine Learning & AI Module - API Integration and F			
API1. Integrate GEMINI API		12	15
API2. Test fallback mechanisms		8	10
Web - Backend			
BE1. Set up backend architecture		5	8
BE2. Implement user authentication		8	12
BE3. Develop APIs for image upload		10	15
BE4. Configure database		12	18
BE5. Enable real-time data updates		15	20
BE6. Secure APIs with tokens		10	15
Web - Frontend			
FE1. Create login and sign-up UI		5	8
FE2. Develop Home Page		10	12
FE3. Build disease analysis components		12	15
FE4. Design interactive map		15	18
FE5. Implement community page UI		10	12
FE6. Test accessibility		8	10
TotalDevelopment		**242**	**329**
Non-Dev Tasks			
ND1. PM	0.05	12,1	16,45
ND2. TL	0.07	16,94	23,03
QA1. Test Planning	0.10	24,2	32,9
QA2. Functional Testing	0.15	36,3	49,35
QA3. Regression Testing	0.10	24,2	32,9
QA4. Performance Testing	0.12	29,04	39,48
QA5. Security Testing	0.08	19,36	26,32
QA6. Conduct Smoke Tests	0.05	12,1	16,45
BF1. Identify and resolve bugs	0.08	19,36	26,32
BF2. Verify bug fixes	0.10	24,2	32,9
DO1. Staging Deployment	0.07	16,94	23,03

DO2. Production Deployment	0.03	7,26	9,87
Grand Total		**484.0**	**658.0**

Pessimistic Hour
3
12
16
15
25
40
50
12
15
18
12
12
15
20
25
25
20
10
15
20
25
15
12
432
21,6
30,24
43,2
64,8
43,2
51,84
34,56
21,6
34,56
43,2
30,24

12,96
864.0