

\$ Estimation Document V1

i Project Estimation - CURRENT [↗](#)

Date: 5 mag 2024

Version: **v1.5**

Estimation Approach [↗](#)

Consider the EzElectronics project in CURRENT version (as given by the teachers), assume that you are going to develop the project INDEPENDENT of the deadlines of the course, and from scratch.

1. Estimate by size [↗](#)

Estimate	
NC = Estimated number of classes to be developed	19
A = Estimated average size per class, in LOC	85
S = Estimated size of project, in LOC (= NC * A)	1615
E = Estimated effort, in person hours (here use productivity 10 LOC per person hour)	162
C = Estimated cost, in euro (here use 1 person hour cost = 30 euro)	4860
Estimated calendar time, in calendar weeks (Assume team of 4 people, 8 hours per day, 5 days per week)	1 week 5 days of work

2. Estimate by product decomposition [↗](#)

Component Name	Estimated effort (person hours)
Requirement document	34
GUI prototype	8
Design document	30
Code	112
Unit tests	65
API tests	10
Management documents	25

3. Estimate by activity decomposition [↗](#)

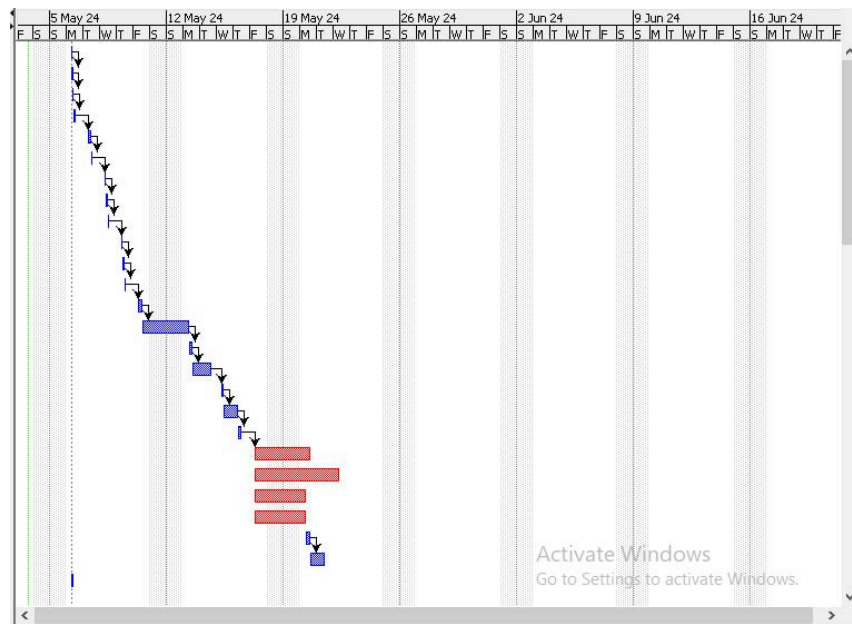
Activity Name	Estimated effort (person hours)
1- Requirement doc	Tot. 46
Stakeholders	2
Context diagram	1
Interfaces	2
Functional req	12
Non function req	15

Use cases	8
Deployment diagram	6
2- GUI prototype	Tot. 11.5
Home page	22
Manager page	1.5
Products page	2
Login page	2
Signup page	1
Product specification	1
Cart	2
3- Coding	Tot. 148
Declaring classes	25
Classes constructors	15
Classes interfaces	18
Db and crud scripts	40
Authentication req	15
Errors management	20
Configuration files(json)	15
4- Testing	Tot. 65
API testing	15
Code testing	25
User testing	15
DB testing	10
5- Management doc	Tot. 36
Planning	10
Budgeting	15
Tracking	5
Versioning	4
Release	2

Grantt Chart [↗](#)

(see granChartt.prod file in repository)

Below you can see snapshots of it.



Grantt stacked bar Chart

		Name	Duration	Start	Finish
1		stake holders	0.125 days	5/6/24 8:00 AM	5/6/24 9:00 AM
2		context diagram and interface	0.125 days	5/6/24 9:00 AM	5/6/24 10:00 AM
3		interface	0.125 days	5/6/24 10:00 AM	5/6/24 11:00 AM
4		functional req	0.375 days	5/6/24 11:00 AM	5/6/24 3:00 PM
5		non functional	0.5 days	5/7/24 8:00 AM	5/7/24 1:00 PM
6		use case	0.25 days	5/7/24 1:00 PM	5/7/24 3:00 PM
7		deployment diagram	0.25 days	5/8/24 8:00 AM	5/8/24 10:00 AM
8		home page	0.25 days	5/8/24 10:00 AM	5/8/24 1:00 PM
9		manager page	0.25 days	5/8/24 1:00 PM	5/8/24 3:00 PM
10		product page	0.25 days	5/9/24 8:00 AM	5/9/24 10:00 AM
11		login page	0.25 days	5/9/24 10:00 AM	5/9/24 1:00 PM
12		signup/product/cart	0.25 days	5/9/24 1:00 PM	5/9/24 3:00 PM
13		Declaring classes	0.75 days	5/10/24 8:00 AM	5/10/24 3:00 PM
14		classes construction	0.5 days	5/10/24 3:00 PM	5/13/24 10:00 AM
15		classes interface	0.5 days	5/13/24 10:00 AM	5/13/24 3:00 PM
16		Db and crud script	1.25 days	5/13/24 3:00 PM	5/14/24 5:00 PM
17		authentication req	0.438 days	5/15/24 8:00 AM	5/15/24 11:30 AM
18		Errors management	0.625 days	5/15/24 11:30 AM	5/16/24 8:30 AM
19		configuration files	0.5 days	5/16/24 8:30 AM	5/16/24 1:30 PM
20		api testing	1.875 days	5/17/24 8:00 AM	5/20/24 4:00 PM
21		code testing	3.125 days	5/17/24 8:00 AM	5/22/24 9:00 AM
22		user testing	1.25 days	5/17/24 8:00 AM	5/20/24 10:00 AM
23		db testing	1.25 days	5/17/24 8:00 AM	5/20/24 10:00 AM
24		planning	0.625 days	5/20/24 10:00 AM	5/20/24 4:00 PM
25		Budgeting	0.625 days	5/20/24 4:00 PM	5/21/24 1:00 PM
26		versioning/release	0.375 days	5/6/24 8:00 AM	5/6/24 11:00 AM

Schedule Table



Full view of Grantt Chart development

Summary [↗](#)

Here we report the results of the three estimation approaches. The estimates may differ. Discuss here the possible reasons for the difference

	Estimated effort	Estimated duration
estimate by size	162	40 hours (1 week)
estimate by product decomposition	284	71 hours (8-9 days)
estimate by activity decomposition	306.5	76.5 (9-10) days

The difference between the 3 estimations, is because of the different approaches.

In the first approach, we don't think about the details, we only calculate the effort and the duration needed from the lines of code estimated to be written. while in the second approach we compute the duration by decomposing the product, finally in the 3rd approach we estimated the effort and the duration by estimating the time needed to finish each activity.