PROJECT PLANNING & MANAGEMENT FORM

CMPE 406

PROJECT NO   :

PROJECT NAME   :

PROJECT START DATE   :

PROJECT END DATE   :

SUPERVISOR   :

SEMESTER TERM   :

Project Type: Software Design & Development Project
Template updated: 20.11.2017

The from is adapted from TÜBİTAK* – The scientific and technological Research Council of TURKEY, https://www.tubitak.gov.tr/en

A.1. Preliminary Project Information

A.1.1

Project No	
Project Name	
Start Date	
End Date	
Time	

A.1.2

Project Manager			
Name Surname		**ID No**	
Title/Role			
Address			
Phone			
Email			

A.2 Group Information

A.2.1

Student 1			
Name Surname		**ID No**	
Title/Role			
Address			
Phone			
Email			

Student 2			
Name Surname		**ID No**	
Title/Role			
Address			
Phone			
Email			

A.2.2

List of Completed / Ongoing Projects of Team

B.1 Introduction to Project

B.1.1

Summary of Project

B.1.2

Key Words

B.1.3

Aim of Project

B.1.4

Innovative Aspects/Contributions of Project

B.1.5

Methods to be Applied

B.1.6

Economic and National Outcomes

B.2 Reason of Starting the Project, Methods and R&D Stages

B.2.1

1- Explain the reason of starting this project. (Max 500 charachter)

2- Explain the purpose of this project.

3- Explain
  - output of project
  - national / international standards if exist
  - the specific objectives of the project
  - success criterias
  - realistic constraints

4- Explain
  - the methods to be applied during R&D activities
  - applications
  - technics and tools to be used
  - standards to be followed under the workflow

Which SOFTWARE PROCESS MODEL in below will you apply? Why? How? Explain.
* The waterfall model?
*V-model of software process?
*Evolutionary development?
*Component-based software engineering? Etc.

Explain, Project Workflow:

1. **Feasibility and Pre-research:**

2. **System Design:**

3. **Software development:**

4. Prototype implementation and testing work:

5. Maintenance:

5- Explain
- the contribution of national/international technological development if exist
- starting a new research and development projects within or outside the team
- launch new applications or research studies in different technology areas

With whom we can cooperate?
Expectations:
Published work:
Can your output be an input for other similar national/international projects?

B.3 Innovative and Unique Aspects

B.3.1

1- Describe
    o **differences**
    o **advantages**
    o **superiority**
compared to other similar projects.

B.4.1

2- Who can contribute to this project in your team?

Example:
    o Project Manager
    o System Designer
    o …..

C.1 Gantt Chart and Work Packages

C.1.1 Gantt Chart

WP NO	WORK STEPS	TIME	START DATE	END DATE
WP1:	Project Feasibility and Pre-Research (SRS-Feasibility stage)	3 MONTH	01.04.2016	31.6.2016
1.1.	**Project Process and Economic Feasibility**			
	* Project Initiation			
	* Economic feasibility analysis			
	* Analysis of similar products			
	* Market research			
	* Identification of the requirements and cost analysis of relevant sectors			
	*Analysis of Workflow			
1.2.	**Technological Feasibility**			
	* Output technical and technological requirements analysis			
	* Determine the technological resources will be needed in the project			
	* Literature and patent research			
	* Examination of similar national and international projects made by applied technology			
	* Conceptual design			
	* Potential research approaches and methods			
	* Software requirements analysis			
WP2:	X Based System Design Technology (SRS-design stage)	6 MONTH	01.07.2016	30.12.2016
2.1.	Determining the System Parameters			
2.2.	Design of System			
2.3.	Selection of the device to be used			
2.4.	Material and Supplier Selection			
2.5.	Evaluation of System Design and Revisions			
WP3:	X Development of System Software (SRS-Development Stage)	9 MONTH	01.11.2016	31.6.2017
3.1.	**Concept Development and Needs Analysis**			
	* X System concept for software development			
	* System requirements / needs analysis			
	* Solution and research or technical models to determine			
3.2.	**Creating a Database**			
	* Classification and associated to the Database			
	* Development of Inquiry module (Queries)			
	* Accuracy optimization studies			
3.3.	**Software development**			
	* Establishment of the structure and the establishment of the necessary server software			
	* Algorithm Modeling			
	* Create a System X programming language for Web services			
	* The creation of the database connection module between Web services			
	* User Interface Design and Programming			
	* Creating User Reports received by the Information			
3.4.	**Software Integration**			
	* User interface, the creation of links between Web services and database module			
	* User interface testing			
	* Establishment of the structure and the establishment of the necessary server software			
	* The data can be saved to disk and processing database			
	* Security and performance optimization			
	* The creation of user reports			
	* System Testing and Required Revisions			
WP4:	Prototype Implementation and Test Study (SRS-Test & Maintanance stage)	6 MONTH	01.01.2017	31.6.2017
5.1.	Interface Tests			
5.2.	Mobile application testing			
5.3.	Testing of database and application server			
5.4.	Testing on real users of the system			
5.5.	Displaced by the Implementing Agency Assessment and Testing			
5.6.	Test Results Analysis and System Evaluation			
5.7.	Establishing Standards Certification			
5.8.	Completion of Improvements			
5.9.	Project Closure			

C.1.2 List of Work Packages

Work Package No	1
Work Package Name	**Project Feasibility and Pre-Research (Feasibility Analysis)**
Start-End Date and Time	
Related Organizations	

1- List the activities of work packages.

1.1 Project Process and Economic Feasibility:

1.2 Technological Feasibility:

2- Describe the methods and parameters that will be used for work package.

3- List the experiments, tests and analysis in the work package.

4- List the output of work package and its success criterias.

Outputs:

Success Criterias:

5- Explain the relation of output with other work packages

C.1.2 List of Work Packages

Work Package No	2
Work Package Name	**Based System Design Technology (Analysis & Design stage)**
Start-End Date and Time	
Related Organizations	

1- List the activities of work packages.

2- Describe the methods and parameters that will be used for work package.

3- List the experiments, tests and analysis in the work package.

4- List the output of work package and its success criterias.

Outputs:

Success Criterias:

5- Explain the relation of output with other work packages

Work Package No	3
Work Package Name	**Development of System Software (Development Stage)**
Start-End Date and Time	
Related Organizations	

1- List the activities of work packages.

2- Describe the methods and parameters that will be used for work package.

3- List the experiments, tests and analysis in the work package.

4- List the output of work package and its success criterias.

Outputs:

Success Criterias:

5- Explain the relation of output with other work packages

Work Package No	4
Work Package Name	**Prototype Implementation and Test Study and Maintenance (Test & Maintenance stage)**
Start-End Date and Time	
Related Organizations	

1- List the activities of work packages.

2- Describe the methods and parameters that will be used for work package.

3- List the experiments, tests and analysis in the work package.

4- List the output of work package and its success criterias.
Outputs: **Success Criterias:**

5- Explain the relation of output with other work packages

C.1.3 List of Milestones (should be matched in the Gantt chart)

	Description of Output	Expected Time Interval
Example:	*Feasibility Studies*	*01.07.2014 – 30.09.2014*
1		
2		
3		
4		
5		
6		
7		

C.1.4 List of Risks (see following example, find other risks of your Project!)

Risk	Probability	Effects	Your Strategy
The time required to develop the software is underestimated.	High	Serious	?
Software tools cannot work together in an integrated way.	High	Tolerable	?
Customers fail to understand the impact of requirements changes.	Moderate	Tolerable	?
The rate of defect repair is underestimated.	Moderate	Tolerable	Replace potentially defective components with more reliable bought-in components.
The size of the software is underestimated.	High	Serious	Investigate buying sw components; Investigate use of a program generator.
Code generated by code generation tools is inefficient.	Moderate	Insignificant	
Key staff are ill at critical times in the project.	Moderate	Serious	Reorganize team so that there is more overlap of work and people therefore understand each other's jobs.
The database used in the system cannot process as many transactions per second as expected.	Moderate	Serious	Investigate the possibility of buying a higher-performance database.

C.2 Project Management and Organization

C.2.1 Project Team

Personnel Name	Title	ID	Education Status	Graduation Date	Date of Starting Work	Idea Owner

C.2.2 Organization Scheme (an example is given below!)
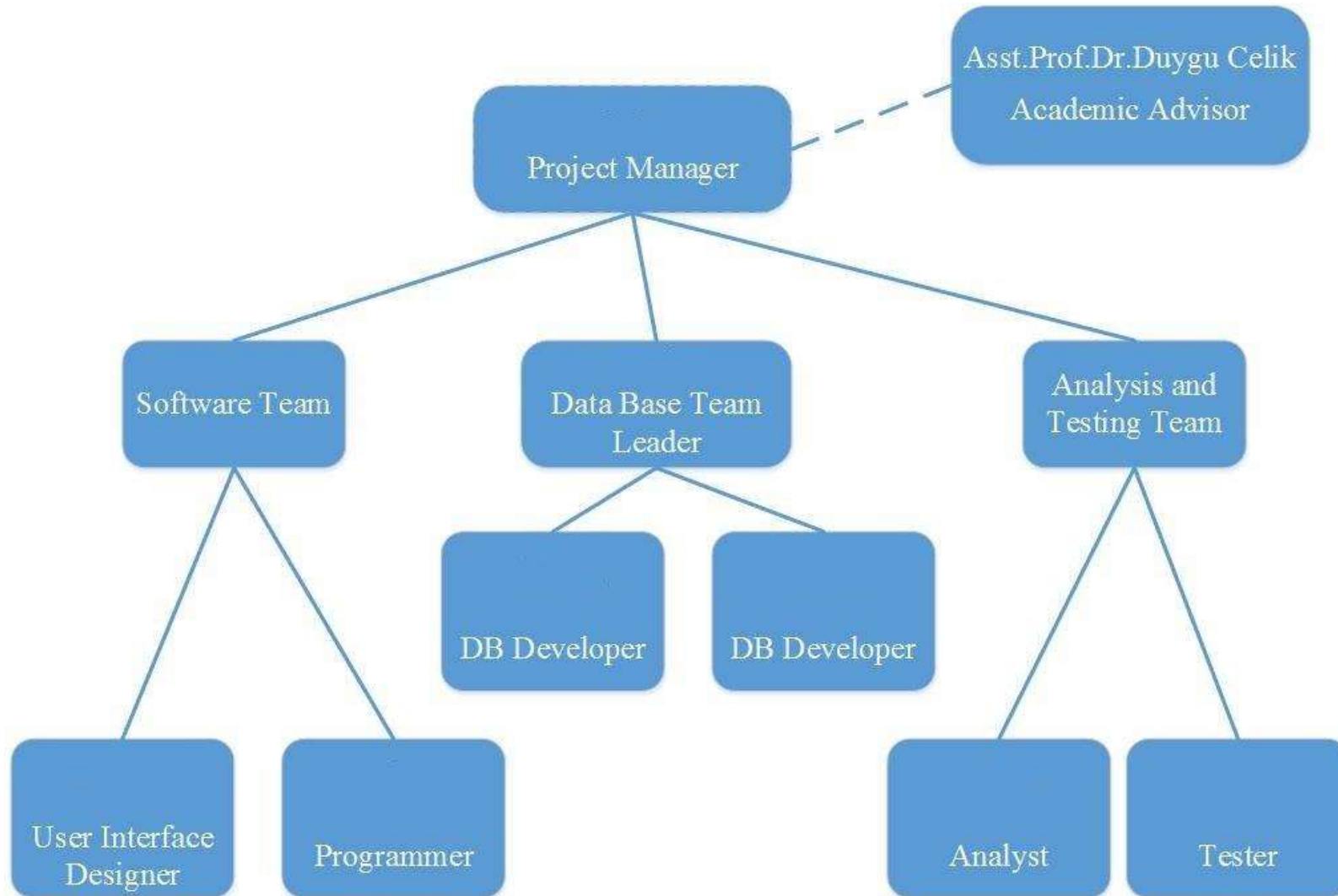
D.1 Economic Forecasts

1- Evaluate the commercialization potential of project outcomes. List possible risks here?

2- List your expectations to your team which are come by your project	
Time-to-market (month):	
The expected increase in sales revenue (%):	
The expected increase in market share (%):	
Time to start to gain:	

D.2 National Outcomes

1- Specify the output that may be subject to patent, utility model and industrial design registration in the project.
2- Explain the potential of project and its outputs that may have an effect on social life, education, health and etc.
3- Explain the positive and negative effects of project outputs for environment and human being.

(M013) Instrument / Equipment / Software / RELEASE PURCHASES

Project Name										
Line no	Instrument / Equipment / Software / Publication Name	No. of Item	Capacity	Technical specification	Purpose of Project Activities	Post-Project Place of Use / Purpose		Unit Price (USD)	Unit Price (TL)	Total Amount (TL)
						R & D	Production			
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
								TOTAL		TL

(M030) Quarterly Estimated Cost Form (TL)

Project Name :				
Cost Item	**YEAR?**		**TOTAL** **(TL)**	**TOTAL COST RATE OF CONTENTS (%)**
	I	**II**		
Personnel				
Travel				
Instrument / Equipment / Software / Publications				
Domestic Works Made By R & D and Testing Institutions				
International Works Made By R & D and Testing Institutions				
Domestic Services Procurement				
Overseas Service Procurement				
Material				
TOTAL COST				100
CUMULATIVE COST				100
IN THE PROJECT TOTAL MAN-MONTH				

APPENDIX

1- Perform estimation of effort (Man/month), required total time duration and required number of team members by using COCOMO approach (or other methods are possible).
2- CPM (Critical Path Management) analysis by using PERT (defining paths)
3- Creating network diagram of the main tasks in WBS
4- Calculating probability of successful completion rate for each paths
5- Crashing approach, etc. techniques and the results can be written here.