WBS	Schedule	Activity	Principal	Start Date	End Date	Days	Actual hours	Participants	Headcount	Man-day
1	100.00%	1.Team building & Initiation	PM	2019/03/20	2019/03/27	6	64	ALL	22	
1.1	100.00%	1.1Business case	PM	2019/03/20	2019/03/21	2	16	PM1,PM2,RA	3	6
1.2	100.00%	1.2Evaluation & Recommandation	PM	2019/03/22	2019/03/22	1	8	PM1,PM2,RA	3	3
1.3	100.00%	1.3Team meeting	PM	2019/03/25	2019/03/25	1	8	ALL	22	22
1.4	100.00%	1.4Cooperation method selection	PM	2019/03/25	2019/03/25	1	8	PM1,PM2,PDM,QAM,SQA	5	5
1.5	100.00%	1.5Project management planning	PM	2019/03/25	2019/03/25	1	8	PM1,PM2,PDM,QAM,SQA	5	5
1.6	100.00%	1.6Project schedule	PM	2019/03/26	2019/03/26	1	8	PM1,PM2,PDM,QAM,SQA	5	5
1.7	100.00%	1.7Task division	PM	2019/03/27	2019/03/27	1	8	PM1,TM,PDM,QAM,SQA	5	5
2	100.00%	2.Requirement analysis & Modeling	PDM	2019/03/28	2019/04/16	14	128	PM1,PM2,TM,PDM,QAM,RA,PA,SA,PD, UI,DBA	12	
2.1	100.00%	2.1Requirements collection	RA	2019/03/28	2019/04/03	5	40	PM2,RA,PDM,PD	4	20
2.2	100.00%	2.2Requirements analysis	RA	2019/04/04	2019/04/05	2	16	PM1,PM2,TM,PDM,QAM,RA,PA,SA,PD	10	20
2.3	100.00%	2.3SRS & Flow drafts	PDM	2019/04/08	2019/04/09	2	16	PM1,PM2,TM,PDM,QAM,RA,PA,SA,PD, UI,DBA	12	24
2.4	100.00%	2.4SRS & Flow complete	PDM	2019/04/10	2019/04/10	1	8	PM1,PM2,TM,PDM,QAM,RA,PA,SA,PD, UI,DBA	12	12
2.5	100.00%	2.5Determine functional modules	PDM	2019/04/11	2019/04/12	2	16	PM1,PM2,TM,PDM,QAM,RA,PA,SA,PD, UI,DBA	12	24
2.6	100.00%	2.6Determine non-functional modules	TM	2019/04/11	2019/04/12	2	16	PM1,PM2,TM,RA	4	8
2.7	100.00%	2.7Requirements confirmation	PDM	2019/04/15	2019/04/15	1	8	PM1,PM2,TM,PDM,QAM,RA,PA,SA,PD, UI,DBA	12	12
2.8	100.00%	2.8Prepare development plan	TM	2019/04/16	2019/04/16	1	8	PM1,PM2,TM,PDM,QAM	5	5
3	0.00%	3.High-Level design	TM	2019/04/17	2019/04/29	9	96	PM1,PM2,TM,PDM,QAM,RA,PA,SA,PD,	18	
3.1	0.00%	3.1Prototype design	PDM	2019/04/17	2019/04/19	3	24	UI,DBA,TL,DE PM1,PM2,PDM,UI,PD	5	15
3.2	0.00%	3.2Moduel design	TM	2019/04/22	2019/04/23	2	16	PM1,PM2,TM,PDM,PA,TL,PD,UI,DE	14	28
3.3	0.00%	3.3Business architecture design	TM	2019/04/24	2019/04/24	1	8	PM1,TM,PA	4	4
3.4	0.00%	3.4System architecture design	TM	2019/04/25	2019/04/29	3	24	PM1,TM,SA	3	9
3.5	0.00%	3.5Database design	DBA	2019/04/24	2019/04/26	3	24	PM1,TM,DBA,RA	4	12
4	0.00%	4.Detail design	TM	2019/04/30	2019/05/08	7	112	PM1,PM2,TM,TL,PA,DE,PA,RA,DBA,P	17	
4.1	0.00%	4.1Process flow design	TM	2019/04/30	2019/04/30	1	8	DM,UI PM1,TM,TL,PA,DE	10	10
4.2	0.00%	4.2Class design	TM	2019/05/01	2019/05/02	2	16	PM1,TM,TL,PA,DE,PA,RA,DBA	12	24
4.3	0.00%	4.3Data flow design	TM	2019/05/03	2019/05/03	1	8	PM1,TM,TL,PA,DE	10	10
4.4	0.00%	4.4Algorithm design	TM	2019/05/06	2019/05/08	3	24	PM1,TM,TL,PA,DE	10	30
4.5	0.00%	4.5UI design	PDM	2019/05/01	2019/05/07	5	40	PM1,PM2,PDM,UI,RA	5	25
4.6	0.00%	4.6Interface design	TM	2019/05/06	2019/05/07	2	16	PM1,TM,TL,PA,DE,PA,DBA	11	22
5	0.00%	5.Environmental construction	SA	2019/05/09	2019/05/10	2	48	TM,TL,DE,PA,SA,DBA	11	22
5.1	0.00%	5.1Database building	DBA	2019/05/09	2019/05/10	2	16	TM, TE, DE, FA, SA, DBA	2	4
5.2	0.00%	5.2Server building	SA	2019/05/09	2019/05/10	2	16	TM,SA	2	4
		_								
5.3	0.00%	5.3Development building	TM	2019/05/09	2019/05/10	2	16	TM.TL.DE.DA.DBA	11	22
6	0.00%	6.Development	TM	2019/05/13	2019/06/05	18	232	TM,TL,DE,PA,DBA	10	10
6.1	0.00%	6.1Database	TM	2019/05/13	2019/05/17	5	40	TM,DBA	2	10
6.2	0.00%	6.2Coding	TM	2019/05/16	2019/06/04	14	112	TM,TL,DE,PA,DBA	10	140
6.3	0.00%	6.3Self-testing	TM	2019/05/23	2019/06/05	10	80	TM,TL,DE,PA,DBA	10	100

7	0.00%	7.Test	QAM	2019/05/20	2019/06/18	22	296	QAM,QA,TM	5	
7.1	0.00%	7.1Test design and plan	QAM	2019/05/20	2019/05/22	3	24	QAM,QA,TM	5	15
7.2	0.00%	7.2Unit testing	QAM	2019/05/24	2019/06/07	11	88	QAM,QA,TM	5	55
7.3	0.00%	7.3Integration testing	QAM	2019/06/10	2019/06/11	2	16	QAM,QA,TM	5	10
7.4	0.00%	7.4System testing	QAM	2019/06/12	2019/06/14	3	24	QAM,QA,TM	5	15
7.5	0.00%	7.5Testing report	QAM	2019/05/24	2019/06/18	18	144	QAM,TM	2	36
8	0.00%	8.Operation	SA	2019/06/19	2019/06/28	8	64	TM,SA,QAM,QA,SQA,TL,DBA,PM2	11	
8.1	0.00%	8.1Acceptance testing	QAM	2019/06/19	2019/06/21	3	24	QAM,QA,SQA	5	15
8.2	0.00%	8.2Deploy project	SA	2019/06/24	2019/06/25	2	16	TM,SA,TL,DBA	5	10
8.3	0.00%	8.3Promote	PM2	2019/06/26	2019/06/28	3	24	PM2	1	3
										total:804