

## ABSTRAK

Di dalam proses pembuatan aplikasi di PT Intan Triputra Abadi ( yang seringkali dikatakan sebagai suatu proyek ) sering ditemui kendala keterlambatan penyampaian aplikasi ke *client* yang disebabkan oleh ketidakteraturan dari *project management*. Untuk itu, diperlukan suatu aplikasi yang dapat mengatur penggerjaan setiap bagian / *task* dari proyek sehingga penggerjaan terhadap *task* dapat terawasi dengan baik. Pendekatan yang digunakan untuk *project management* sendiri adalah mengambil tiga *knowledge area*, yakni *scope management*, *cost management* dan *time management*. Aplikasi yang dibangun berbasis *java*, *spring* dan *myBatis*. Diharapkan aplikasi ini dapat membantu untuk pengambilan keputusan dalam berjalannya suatu proyek di PT Intan Triputra Abadi.

Kata kunci: *project management*, *knowledge area*.



## ABSTRACT

*In a way of development phase of an application ( that often known as a project ) on PT Intan Triputra Abadi, usually found late for application deliverable, in result of the uncontrollable project management. For that purpose, this company needs an application that can control the assignment for every task in project until the developer can be monitored. The approximation method is use three knowledge areas of project management : scope management, cost management and time management. This application build by java, spring and myBatis. Hopefully, this application will helps project manager to get a decision in the project.*

Keywords: *project management, knowledge area.*



## DAFTAR ISI

LEMBAR PENGESAHAN .....	i
PERNYATAAN ORISINALISTAS LAPORAN PENELITIAN .....	ii
PERNYATAAN PUBLIKASI LAPORAN PENELITIAN .....	iii
PRAKATA .....	iv
ABSTRAK .....	vi
ABSTRACT .....	vii
DAFTAR ISI .....	viii
DAFTAR GAMBAR .....	xii
DAFTAR TABEL .....	xiv
BAB 1 PENDAHULUAN .....	1
1.1 Latar Belakang .....	1
1.2 Rumusan Masalah .....	2
1.3 Tujuan Pembahasan .....	2
1.4 Ruang Lingkup .....	2
1.4.1 Ruang Lingkup Aplikasi .....	2
1.4.1.1 <i>Scope Management</i> .....	3
1.4.1.2 <i>Cost Management</i> .....	3
1.4.1.3 <i>Time Management</i> .....	3
1.5 Sumber Data .....	4
1.6 Sistematika Penyajian .....	4
BAB 2 KAJIAN TEORI .....	6
2.1 <i>Project Management</i> .....	6
2.1.1 <i>Project Monitoring and Controlling</i> .....	7
2.1.2 <i>Project Knowledge Area</i> .....	8

2.1.2.1 <i>Scope Management</i> .....	8
2.1.2.2 <i>Time Management</i> .....	9
2.1.2.3 <i>Cost Management</i> .....	10
2.2 <i>Pembobotan</i> .....	10
2.3 <i>Modeler – Viewer – Controller Concept</i> .....	10
2.4 <i>Spring Framework</i> .....	12
2.5 <i>ZK Framework</i> .....	12
2.6 Java.....	12
2.7 MyBatis .....	12
<b>BAB 3 ANALISIS DAN RANCANGAN SISTEM .....</b>	<b>14</b>
3.1 Analisis.....	14
3.1.1 Analisis Proses Yang Berjalan Saat Ini .....	14
3.1.1.1 <i>Scope Management</i> .....	14
3.1.1.2 <i>Time Management</i> .....	15
3.1.1.3 <i>Cost Management</i> .....	16
3.1.2 Analisis Kebutuhan Sistem Baru .....	17
3.1.2.1 Analisis Pengguna Sistem.....	17
3.1.2.2 Analisis Kebutuhan Fungsional.....	17
3.2 Perancangan.....	19
3.2.1 Perancangan UML.....	19
3.2.1.1 <i>Use Case Diagram</i> .....	19
3.2.1.2 <i>Activity Diagram</i> .....	20
3.2.1.3 <i>Class Diagram</i> .....	25
3.2.2 Perancangan Database .....	26
3.2.2.1 <i>Entity Relationship Diagram</i> .....	26
3.2.2.2 <i>Database Schema</i> .....	27

3.2.3 Struktur Tabel.....	27
3.2.4 Perancangan <i>User Interface</i> .....	32
3.2.4.1 <i>Cost Management</i> .....	32
3.2.4.1.1 <i>Scope Costing</i> .....	32
3.2.4.1.2 <i>Priority Cost</i> .....	34
3.2.4.2 <i>Scope Management</i> .....	35
3.2.4.2.1 <i>Project Size and Priority</i> .....	35
3.2.4.2.2 <i>Priority Scope</i> .....	37
3.2.4.3 <i>Time Management</i> .....	38
3.2.4.3.1 <i>Schedule Meeting</i> .....	38
3.2.4.3.2 <i>Deadline Notification</i> .....	40
3.2.4.3.3 <i>Project Monitoring</i> .....	41
3.2.4.3.4 <i>Progress</i> .....	43
3.2.4.4 <i>Developer View</i> .....	44
BAB 4 IMPLEMENTASI.....	46
4.1 Hasil tampilan .....	46
4.1.1 <i>Cost Management</i> .....	46
4.1.1.1 Tampilan Form <i>Scope Costing</i> .....	46
4.1.1.2 Tampilan Form <i>Priority Cost</i> .....	48
4.1.2 <i>Scope Management</i> .....	49
4.1.2.1 Tampilan Form <i>Project Size and Priority</i> .....	49
4.1.2.2 Tampilan Form <i>Priority Scope</i> .....	50
4.1.3 <i>Time Management</i> .....	51
4.1.3.1 Tampilan Form <i>Schedule Meeting</i> .....	52
4.1.3.2 Tampilan Form <i>Deadline</i> .....	53
4.1.3.3 Tampilan Form <i>Project Monitoring</i> .....	55
4.1.3.4 Tampilan Form <i>Progress</i> .....	56
4.1.3.5 Tampilan Form <i>Update Status Developer</i> .....	57

4.1.3.6 Tampilan Notifikasi <i>Email Overtime</i> .....	58
BAB 5 PENGUJIAN .....	59
5.1 Pengujian <i>Black Box</i> .....	59
5.1.1.1 Pengujian <i>Form Scope Costing</i> .....	59
5.1.1.2 Pengujian <i>Form Project Size and Priority</i> .....	60
5.1.1.3 Pengujian <i>Form Schedule Meeting</i> .....	60
5.1.1.4 Pengujian <i>Form Deadline</i> .....	61
5.1.1.5 Pengujian <i>Form Project Monitoring</i> .....	61
5.1.1.6 Pengujian <i>Form Update Status Developer</i> .....	62
BAB 6 SIMPULAN DAN SARAN .....	63
6.1 Simpulan.....	63
6.2 Saran.....	63
DAFTAR PUSTAKA .....	64

## DAFTAR GAMBAR

Gambar 2.1 MVC Architecture .....	11
Gambar 3.1 <i>Flow Chart Scope Management</i> .....	14
Gambar 3.2 <i>Flow Chart Time Management</i> .....	15
Gambar 3.3 <i>Flow Chart Cost Management</i> .....	16
Gambar 3.4 <i>Use case diagram</i> .....	19
Gambar 3.5 <i>Activity diagram</i> estimasi kerumitan, prioritas dan pekerja <i>task</i> .....	20
Gambar 3.6 <i>Activity diagram</i> pengorganisiran penggerjaan proyek .....	21
Gambar 3.7 <i>Activity diagram</i> penjadwalan <i>meeting</i> .....	21
Gambar 3.8 <i>Activity diagram</i> penjadwalan notifikasi <i>deadline</i> .....	22
Gambar 3.9 <i>Activity diagram</i> perhitungan biaya proyek .....	23
Gambar 3.10 <i>Activity diagram</i> menampilkan <i>progress</i> proyek .....	23
Gambar 3.11 <i>Activity diagram</i> notifikasi <i>overtime</i> .....	24
Gambar 3.12 <i>Class diagram</i> aplikasi.....	25
Gambar 3.13 <i>Entity Relationship Diagram</i> .....	26
Gambar 3.14 <i>Database schema</i> aplikasi.....	27
Gambar 3.15 Desain <i>user interface scope costing</i> .....	32
Gambar 3.16 Desain <i>user interface list task to cost</i> .....	33
Gambar 3.17 Desain <i>user interface add/edit task to cost</i> .....	34
Gambar 3.18 Desain <i>user interface list priority cost</i> .....	34
Gambar 3.19 Desain <i>user interface add/edit priority cost</i> .....	35
Gambar 3.20 Desain <i>user interface list project</i> di <i>project size and priority</i> .....	36
Gambar 3.21 Desain <i>user interface list task</i> di <i>project size and priority</i> .....	36
Gambar 3.22 Desain <i>user interface add/edit task</i> di <i>project size and priority</i> .....	37
Gambar 3.23 Desain <i>user interface list priority scope</i> .....	37
Gambar 3.24 Desain <i>user interface add / edit scope costing</i> .....	38
Gambar 3.25 Desain <i>user interface list project</i> di <i>schedule meeting</i> .....	39
Gambar 3.26 Desain <i>user interface list meeting</i> di <i>schedule meeting</i> .....	39
Gambar 3.27 Desain <i>user interface add meeting</i> .....	40
Gambar 3.28 Desain <i>user interface list project</i> di <i>deadline notification</i> .....	40
Gambar 3.29 Desain <i>user interface add deadline</i> .....	41

Gambar 3.30 Desain <i>user interface list project</i> di <i>project monitoring</i> .....	41
Gambar 3.31 Desain <i>user interface list task</i> di <i>project monitoring</i> .....	42
Gambar 3.32 Desain <i>user interface add/edit task</i> di <i>project monitoring</i> .....	42
Gambar 3.33 Desain <i>user interface list project</i> di <i>progress</i> .....	43
Gambar 3.34 Desain <i>user interface progress</i> .....	44
Gambar 3.35 Desain <i>user interface list task</i> di <i>developer mode</i> .....	44
Gambar 3.36 Desain <i>user interface update status</i> .....	45
Gambar 4.1 Halaman <i>project list</i> di <i>Scope Costing</i> .....	46
Gambar 4.2 Halaman <i>task to scope</i> di <i>Scope Costing</i> .....	47
Gambar 4.3 Halaman <i>add/edit task to cost</i> .....	47
Gambar 4.4 Halaman <i>priority cost list</i> .....	48
Gambar 4.5 Halaman <i>Add / Edit Priority Reference To Cost</i> .....	48
Gambar 4.6 Halaman <i>project list</i> di <i>project size and priority</i> .....	49
Gambar 4.7 Halaman <i>task list</i> di <i>project size and priority</i> .....	49
Gambar 4.8 Halaman <i>add/edit task to scope</i> di <i>project size and priority</i> .....	50
Gambar 4.9 Halaman <i>list priority scope</i> .....	51
Gambar 4.10 Halaman <i>add/edit priority reference to scope</i> .....	51
Gambar 4.11 Halaman <i>project list</i> di penjadwalan <i>meeting</i> .....	52
Gambar 4.12 Halaman <i>meeting list</i> .....	52
Gambar 4.13 Halaman <i>add meeting</i> .....	53
Gambar 4.14 Halaman <i>project list</i> di <i>deadline</i> .....	54
Gambar 4.15 Halaman <i>input deadline notification</i> .....	54
Gambar 4.16 <i>Email deadline reminder</i> .....	54
Gambar 4.17 Halaman <i>project list</i> di <i>project monitoring</i> .....	55
Gambar 4.18 Halaman <i>task list</i> di <i>project monitoring</i> .....	55
Gambar 4.19 Halaman <i>edit task</i> di <i>project monitoring</i> .....	56
Gambar 4.20 Halaman <i>project list</i> di <i>progress</i> .....	56
Gambar 4.21 Halaman <i>progress</i> .....	57
Gambar 4.22 Halaman <i>task list</i> di <i>developer mode</i> .....	57
Gambar 4.23 Halaman <i>update status</i> .....	58
Gambar 4.24 <i>Email notification overtime</i> .....	58

## DAFTAR TABEL

Tabel 3.1 Tabel fungsionalitas <i>Project Manager</i> .....	17
Tabel 3.2 Tabel fungsionalitas <i>Developer</i> .....	19
Tabel 3.3 Struktur tabel <i>Employee</i> .....	27
Tabel 3.4 Struktur tabel <i>Project</i> .....	28
Tabel 3.5 Struktur tabel <i>EmployeeProject</i> .....	28
Tabel 3.6 Struktur tabel <i>TaskCost</i> .....	28
Tabel 3.7 Struktur tabel <i>Task</i> .....	29
Tabel 3.8 Struktur tabel <i>Meeting</i> .....	30
Tabel 3.9 Struktur tabel <i>TaskDetail</i> .....	30
Tabel 3.9 Struktur tabel <i>PriorityCost</i> .....	31
Tabel 3.9 Struktur tabel <i>PriorityScope</i> .....	31
Tabel 5.1 Tabel pengujian <i>form scope costing</i> .....	59
Tabel 5.2 Tabel pengujian <i>form project size and priority</i> .....	60
Tabel 5.3 Tabel pengujian penjadwalan <i>meeting</i> .....	60
Tabel 5.4 Tabel pengujian <i>deadline</i> .....	61
Tabel 5.5 Tabel pengujian <i>project monitoring</i> .....	61
Tabel 5.6 Tabel pengujian <i>form update status developer</i> .....	62