Temasek Polytechnic
School of Informatics and IT

Diploma in Information Technology (IT)

Project Plan

Project Particulars

Tutor	Mr Mel Goh
Class	P03
Project Title	Delonix Regia Hotel Management System

Project Team's Particulars

Matric Number	Student Name
1501312A	**Nicholas Foo**
15054481	**Low Xin Yi**
1501003F	**Joseph Koh**
1505894D	**Ron Soon JiaJun**

Revision History

Date	Version	Description	Author
<10/5/17>	<1.0>	<Inclusion of revision history and cover page, redistribution of workload, beginning of Roles and Responsibilities and Work Breakdown Structure>	<Ron>
<11/5/17>	<1.1>	<Completion of Roles and Responsibilities and Work Breakdown Structure>	<Ron>
<12/5	<1.2>	<Compilation of all sections>	<Ron>

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1 Introduction

1.1 Objectives and scope of the project (Xin Yi)

The objective of this project is to eliminate the manual process and increase the number of guests to stay in Delonix Regia hotel with the system to manage the hotel. The features that we will be developing are Guest Management, Reservation, Payment Management, Housekeep Management, Review and Report Management. At the end of the project, Mr. and Mrs. Wang can rely on these systems to run their hotel business and improve their revenue.

1.2 Assumptions and constraints (Nicholas)

Assuming that …
there will be more personnel allocated if there is a lack of skill set.
The team consist of at least 1 specialization, Scrum master, developer, programmer, technical experts and independent testers.
The project is small scale and not complex
The PCs given to the team to work on the software are all Window based.
the requirements and specifications are already given and defined
No requirements are needed
There will be a limitless amount of funds for us to use
The time of every member to meet up at least 10 hours on a weekly basis
The program will run smoothly and no problems arises
Assuming the pay will be that of a software engineer

1.3 Definitions and acronyms (Group)

WBS	Work Breakdown Structure
TOR	Terms of Reference
PP	Project Plan
*T	All Team Members
M.W	Mr. and Mrs. Wang
TL	Team Leader
R&R	Roles and Responsibilities
UI	User Interface
D.API	Database API
API	Application Program Interface
XY	Xin Yi
Nic	Nicholas
Jos	Joseph
CRUD	Creating, Reading, Updating, Deleting (Database)

2 Roles and responsibilities (Ron)

Team Members	Roles and Responsibilities
Xin Yi	Guest Management, Housekeeping Management
Nicholas	Review, Inventory Management
Joseph	Report Management
Ron	Reservation, Payment
*T	Remainder

3 Estimates and project schedule

3.1 Work breakdown structure (Ron)

Included at the end of the document

3.2 Project Schedule (Joseph)

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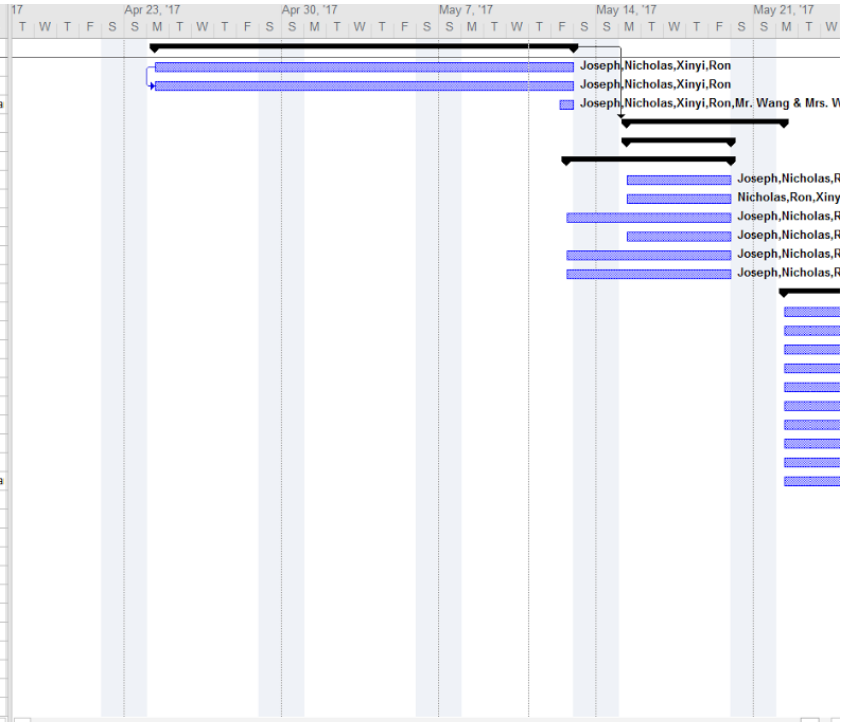
GANTT CHART

	Task Name	Duration	Start	Finish	Pred	Resource Names
1	**Project Management**	**13.13 days**	**Mon 4/24/17**	**Fri 5/12/17**		**Joseph,Nicholas,Xinyi,Ron**
2	Complete Terms Of Reference (TOR)	13.13 days	Mon 4/24/17	Fri 5/12/17		Joseph,Nicholas,Xinyi,Ron
3	Complete Project Plan	13.13 days	Mon 4/24/17	Fri 5/12/17	2SS	Joseph,Nicholas,Xinyi,Ron
4	Approval of project milestone	0.88 days	Fri 5/12/17	Fri 5/12/17		Joseph,Nicholas,Xinyi,Ron,Mr. Wa
5	**Basic Requirement Identification**	**4.38 days**	**Mon 5/15/17**	**Mon 5/22/17**	**1**	**Nicholas**
32	**Security Requirement Identification**	**4.38 days**	**Mon 5/15/17**	**Fri 5/19/17**		**Nicholas**
35	**Prototyping**	**4.38 days**	**Fri 5/12/17**	**Fri 5/19/17**		**Xinyi,Joseph,Nicholas,Ron**
36	Create Pages	4.38 days	Mon 5/15/17	Fri 5/19/17		Joseph,Nicholas,Ron,Xinyi
37	Compliation/Intergation	4.38 days	Mon 5/15/17	Fri 5/19/17		Nicholas,Ron,Xinyi,Joseph
38	Version Documentation	4.38 days	Fri 5/12/17	Fri 5/19/17		Joseph,Nicholas,Ron,Xinyi
39	Defect Documentaion	4.38 days	Mon 5/15/17	Fri 5/19/17		Joseph,Nicholas,Ron,Xinyi
40	Resolve Defect	4.38 days	Fri 5/12/17	Fri 5/19/17		Joseph,Nicholas,Ron,Xinyi
41	Resolve Document	4.38 days	Fri 5/12/17	Fri 5/19/17		Joseph,Nicholas,Ron,Xinyi
42	**Prototyping Development**	**35 days**	**Mon 5/22/17**	**Fri 7/14/17**		**Joseph,Nicholas,Ron,Xinyi**
43	Guest Management	35 days	Mon 5/22/17	Fri 7/14/17		Xinyi
44	HouseKeeping Management	8.75 days	Mon 5/22/17	Fri 6/2/17		Xinyi
45	Reservation	8.75 days	Mon 5/22/17	Fri 6/2/17		Ron
46	Payment	8.75 days	Mon 5/22/17	Fri 6/2/17		Ron
47	Inventory Management	8.75 days	Mon 5/22/17	Fri 6/2/17		Nicholas
48	Report Management	8.75 days	Mon 5/22/17	Fri 6/2/17		Joseph
49	Review	8.75 days	Mon 5/22/17	Fri 6/2/17		Nicholas
50	Compliation/Intergation	8.75 days	Mon 5/22/17	Fri 6/2/17		Joseph,Nicholas,Ron,Xinyi
51	Testing	8.75 days	Mon 5/22/17	Fri 6/2/17		Joseph,Nicholas,Ron,Xinyi
52	Prototyping Review	8.75 days	Mon 5/22/17	Fri 6/2/17		Joseph,Nicholas,Ron,Xinyi,Mr. Wa
53	Prototype System Milestone	0.88 days	Fri 6/2/17	Fri 6/2/17		Joseph,Nicholas,Ron,Xinyi
54	**Prototype Enhancement & Modification**	4.38 days?	Fri 6/2/17	Fri 6/9/17		
55	**Final Testing**	**4.39 days**	**Fri 6/9/17**	**Mon 6/19/17**		**Joseph,Nicholas,Ron,Xinyi**
56	User Interface	4.38 days	Mon 6/12/17	Mon 6/19/17		Joseph,Nicholas,Ron,Xinyi
57	Functionalities	4.38 days	Fri 6/9/17	Fri 6/16/17		Joseph,Nicholas,Ron,Xinyi
58	Security	4.38 days	Fri 6/9/17	Fri 6/16/17		Joseph,Nicholas,Ron,Xinyi
59	Documentation	4.38 days	Fri 6/9/17	Fri 6/16/17		Joseph,Nicholas,Ron,Xinyi
60	**Deployment**	0.88 days	Thu 6/15/17	Fri 6/16/17		Joseph,Nicholas,Ron,Xinyi



Ready | New Tasks : Auto Scheduled

3.3 Budget Summary (Nicholas)

Assumptions made, the salary will be that of a typical software engineer earning about $4,000 a month in Singapore.

The working hours for a software Engineer is 8 hours a days, five times a week. 8 hours/day * 5 days * 8 weeks = 320 hours

The pay salary of all the salary is assumed to be the same regardless of work distribution.

MANPOWER COST										
EMPLOYEE 1	8	$ 8.00	320	$ 25.00	$ -	$ 8,064.00		$ (8,064.00)		
EMPLOYEE 2			320	$ 25.00		$ 8,000.00		$ (8,000.00)		
EMPLOYEE 3			320	$ 25.00		$ 8,000.00		$ (8,000.00)		
EMPLOYEE 4			320	$ 25.00		$ 8,000.00		$ (8,000.00)		
SPECIALIZED SKILL SET					$ 15,000.00	$ 15,000.00		$ (15,000.00)		
						$ 47,064.00	$ -			
HARDWARE COST			**UNITS**	**UNIT*PRICE**	**FIXED COST**					
PCs			4	$2,000.00		$ 8,000.00		$ (8,000.00)		
SERVER			$ 2.00	$2,000.00		$ 4,000.00		$ (4,000.00)		
SCANNER					$ 800.00	$ 800.00		$ (800.00)		
PRINTER					$ 1,200.00	$ 1,200.00		$ (1,200.00)		
Task						$ -		$ -		
						$ 14,000.00	$ -			
SOFTWARE COST			UNITS	UNIT*PRICE	FIXED COST					
SHAREPOINT			$ 4.00	$1,499.91		$ 5,999.64		$ (5,999.64)		
SONARGRAPH			$ 4.00	$ 300.00		$ 1,200.00		$ (1,200.00)		
MICROSOFT PROJECT			$ 4.00	$ 49.90		$ 199.60		$ (199.60)		
OTHER SOFTWARES					$ 20,000.00	$ 20,000.00		$ (20,000.00)		
						$ -		$ -		
Task						$ 21,399.60	$ -			
TOTAL						**$ 47,064.00**	**$ -**			

The total estimated budget is $47064.00, however it is always a good practice to be have more funds than the estimated budget to prevent inadequate funds in future due to unforeseeable problems that might arise. The total amount for the entire project will cost around $50,000.

4 Risk Management Plan (Xin Yi)

The process of risk management is identifying, assessing and avoiding/controlling risks during developing of a software. Risk has a negative impact on a project, however, every successful software has gone through high amount of risks. Risks are highly occurring and the company need to identify the potential risk, determine the type of risk and likelihood of occurrence, lastly, deciding whether to accept the risk and take actions. There are 3 types of risk:

Project risk: It threaten the project plan by not happen as planned. Project risk can be caused by misinterpreting requirements of the project team, the reality is different from the expectations or even one of the project team member is on medical leave. For example, the deadline is one week from today and one of our members was involved in an accident. He will not be able to work on the project and hence, the extra workload will be shared among the 3 of us which is going to affect the work productivity. These are the possible reasons that cause the delaying of the project, which the team is unable to meet the deadline and the project cost will also increase.

Technical risk: It affects the quality and performance of the software. Technical risk occurs when engineers are rushing to finish designing the software by cutting corners or reducing the software functionality to avoid overrunning the project schedule or exceeding the budget given. For example, Mr. Wang requested for a Reservation system to allow customers to book hotel online. However, due to time constraint, our team did not fully build the system functions and the system will show errors whenever customers tries to book a room online.

Business risk: When a software is successfully built, but the company does not know how to promote the product to its audience or it might be outdated that no one wants it. For example, our team has successfully built a hotel management software system, however, our client does not want it anymore because it is no longer fitting the overall business strategy and therefore our effort and time has gone to waste

Likelihood of these risk:

Overrun schedule - Project did not meet the deadline given (1)
Funding cut – Budget given is reduced (1)
Software bugs – Bugs are found in the developed software (4)
Incomplete requirements – Client's requirements are not met (5)
Budget exceeded – Exceed the initial budget given by client (3)
Miscommunication – Developers misunderstood client's requirements (4)
Cut corners – Developers cut corners to save time (4)
Prototype disapprove – Client reject the prototype (2)
Product does not sell (3)
Member on leave (3)
Hardware failure (1)
Lack of resources (4)
Redesigning – Developers designed the user interface wrongly and are required to redesign (3)
Change of requirements – Client request new requirements (4)

However, there are several ways to tackle the risk mentioned. Here are the strategies of risk management:

Risk acceptance: It is a way to deal with the risk by accepting it. This strategy is recommended for minimal/low risk that does not have much impact to the project. No action is required.

Avoid the risk: Risk can be avoided by changing the project plans especially when the risk has large impact to the project. The advantage of this strategy is to avoid the chance of incurring losses. For example, if the planned project is going to exceed the budget, the team should change the plan so that it is within the budget given.

Risk Mitigation: When a risk occurred, the team will take actions to reduce the impact of the risk to the project. For example, if my team faces problem while building the software for Mr. Wang, we will approach our boss to help us.

Risk Contingency: If a risk occurs but could not be solved after accepting avoiding and mitigation, a backup plan will be the solution. For example, after trying to multiple ways to solve the risk but is still does not work, it will need a backup plan to avoid worsen the risk.

5 References

(Xin Yi)
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http://www.itproportal.com/2010/06/14/top-ten-software-development-risks/
http://management.simplicable.com/management/new/130-project-risks
http://www.dbpmanagement.com/15/5-ways-to-manage-risk