Final Group Project Report

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IUPUI

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Dr. Karen Johnson

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Pt. 1: Project Proposal

Summary

Indy Investment Corporation has won a government contract to expand their business from one location to three locations. Their current database is internal only and will need to be expanded. In order to make the database accessible from all locations, the best solution is to port the existing database to a cloud-based server. In addition, the current database is a bit dated, and has embedded C as the programming language. In order to migrate the database to an Oracle cloud server, it will need to be converted to SQL (DBMS_CLOUD for access management 2021). This should allow the company to work seamlessly between offices and could even support remote work when needed.

Background

As an Oracle subcontractor, we have years of experience, and all the resources necessary to port the database as described in the Summary portion of this proposal. In order for this project to be a success, we will need to hire and provide the salaries for one database architect, two database programmers, two IT specialists, two electricians, a pen tester, and a project manager. We will also need materials including but not limited to 10,000ft of CAT6 Gigabit ethernet cable, two tower servers, 16 wireless access points, and two sets of computer peripherals.

Solutions and Approach

For simplicity's sake, we will make the access point for the cloud database at each new location a local server, so that it is easier to keep track of who is accessing it and from where. In addition to doing all the programming and setting up for the port, we will set up each local network to ensure everything is working properly. There will be several wireless access points

for mobile devices and laptop computers, as well as a wired connection for each in-house workstation.

By the end of the project, we expect you will have a working cloud database, and a highly functional local network at each of the new locations. With the use of gigabit speeds, all offices should be able to work together on the same projects in real time. This project is expected to take approximately 6 months to complete, and will be overseen by the project manager, who will work closely with all members of the small team to ensure the success of the project. The programming team will report to the database architect, with all other employees reporting directly to the project manager.

In order to ensure that everyone at Indy Investment Corp. is comfortable with the new approach to databasing, we will keep the IT specialist on site at each office for an additional 2 months to answer any questions and troubleshoot potential issues.

Financials

The total cost of the project is expected to be around $290,000. Breakdown:

- Salaries (Based on 6 months employment): $270,680
    - Project Manager: $57,500 (Salary: IT Project Manager | GLASSDOOR)
    - Database Architect: $52,500 (Salary: Database Architect | GLASSDOOR)
    - Database Programmers (2): $75,000 (Salary: Database Programmer GLASSDOOR)
    - IT Specialists (2): $80,500 (Additional 2 months of support) (Salary: IT Specialist | GLASSDOOR)
    - Penetration Tester: $51,580 (Salary: Pen Tester | GLASSDOOR)
    - Electricians (2): $61,000 (Salary: Electrician | GLASSDOOR)

- Materials: $20,562
    - CAT6 Gigabit Ethernet: $1,900 (Fast Cat 6 | AMAZON)
    - Servers (2): $16,000 (Supermicro Server Box | NEWEGG)
    - Monitors (2): $360 (Westinghouse 1080p Monitor | NEWEGG)
    - Keyboards (2): $100 (Ergonomic Illuminated Keyboard | NEWEGG)
    - Mice (2): $26 (Logitech Optical Mouse | NEWEGG)
    - Wireless Access Points (16): $2,176 (Ubiquiti Access Point | NEWEGG)

Success Criteria

We plan to stick closely to our predetermined goals in order to meet the triple restraint of time, cost, and scope. We are dedicated to our timeline of approximately 6 months, not including the additional 2 months meant to be spent training and troubleshooting any issues. Our company will stick to a schedule that will allow us to finish within this time and come in under $300,000. We will consider our company's project scope to be successful if the project has the intended impact included within the "Solutions and Approach" section of this document.

Conclusion

LJT Database Solutions is happy to help Indy Investment Corporation migrate their existing server, and to create a long-term solution for expansion to even more offices. Converting to cloud now may seem expensive, but in the long run, it is much easier to add a new access point for a cloud database than it is to try and migrate again each time a new expansion takes place. Upon successful completion of the project, IIC can expect to have a more functional and modern database, as well as a robust local network at each of the new offices.

Pt. 2 Project Charter

Project Title: LJT Database Solutions Database Cloud Transition

Date of Authorization: November 1

Project Start Date: November 1

Project Finish Date: July 1

Key Schedule Milestones:

- Have data transferred to the cloud database by February 1.

- Start database training at offices by May 1.

- Allow for remote work by August 1.

Budget Information: The firm has allocated $300,000 for this project. The majority of the costs will go to the payment of the internal staff. The remainder of the allocation will go to purchasing equipment and put aside for any unexpected issues that may arise.

Project Manager: Lance Keith, (317) 123-4567, KeithL@LJTDatabaseSolutions.com

Project Objectives:

- Re-write the database in a modern language, like SQL.

- Ensure that the database is scalable.

- Set up the physical server hardware needed at each of the two locations.

- Port the database to an Oracle cloud server.

- Conduct a pen test to make sure the security is robust.

- Train appropriate team members how to navigate the new database.

Main Project Success Criteria:

The project should meet all previously agreed upon specifications, be tested thoroughly, and completed within the agreed upon time. The project manager and CEO will approve the final completion of the project. They will return after the training period is over to make sure the customer is fully satisfied with the database transfer.

Approach:

- Purchase all hardware needed for the project within the first month
- Install hardware and ensure the connections are secure across all locations.
- While the IT Specialists build the physical network at each location, the Database Architect will design the database, and instruct the programmers how to proceed
- The access point for the database at each location will be the in-house server. That way all access can be controlled and monitored easily

By keeping the IT specialists on staff, we can ensure that the programmers are constructing a database that is user friendly, and that all appropriate staff is properly trained to use IT

Roles And Responsibilities

Name	Role	Position	Contact Information
Phillip Johnson	Sponsor	CEO	JohnsonP@LJTDatabaseSolutions.com
Lance Keith	Project Manager	Manager	KeithL@LJTDatabaseSolutions.com
Jessica Smither	Team Member	Database Architect	SmitherJ@LJTDatabaseSolutions.com
Taylor Mahoney	Team Member	Programmer	MahoneyT@LJTDatabaseSolutions.com
Lilly Chang	Team Member	Programmer	ChangL@LJTDatabaseSolutions.com
Jane Black	Team Member	Penetration Tester	BlackJ@LJTDatabaseSolutions.com
Ishaan Patel	Team Member	IT Specialist	PatelI@LJTDatabaseSolutions.com

Steve Jackson	Team Member	IT Specialist	JacksonS@LJTDatabaseSolutions.com
Karl Becker	Team Member	Electrician	BeckerK@LJTDatabaseSolutions.com
Jeff Smith	Team Member	Electrician	SmithJ@LJTDatabaseSolutions.com

Sign Off: (signatures of all the above stakeholders)

		Steve	
Lance Keith	Lilly Chang	Jackson	Phillip Johnson
Jessica Smither	Jane Black	Karl Becker	
Taylor Mahoney	Ishaan Patel	Jeff Smith	

Comments:

Pt. 3 Project Management Plan

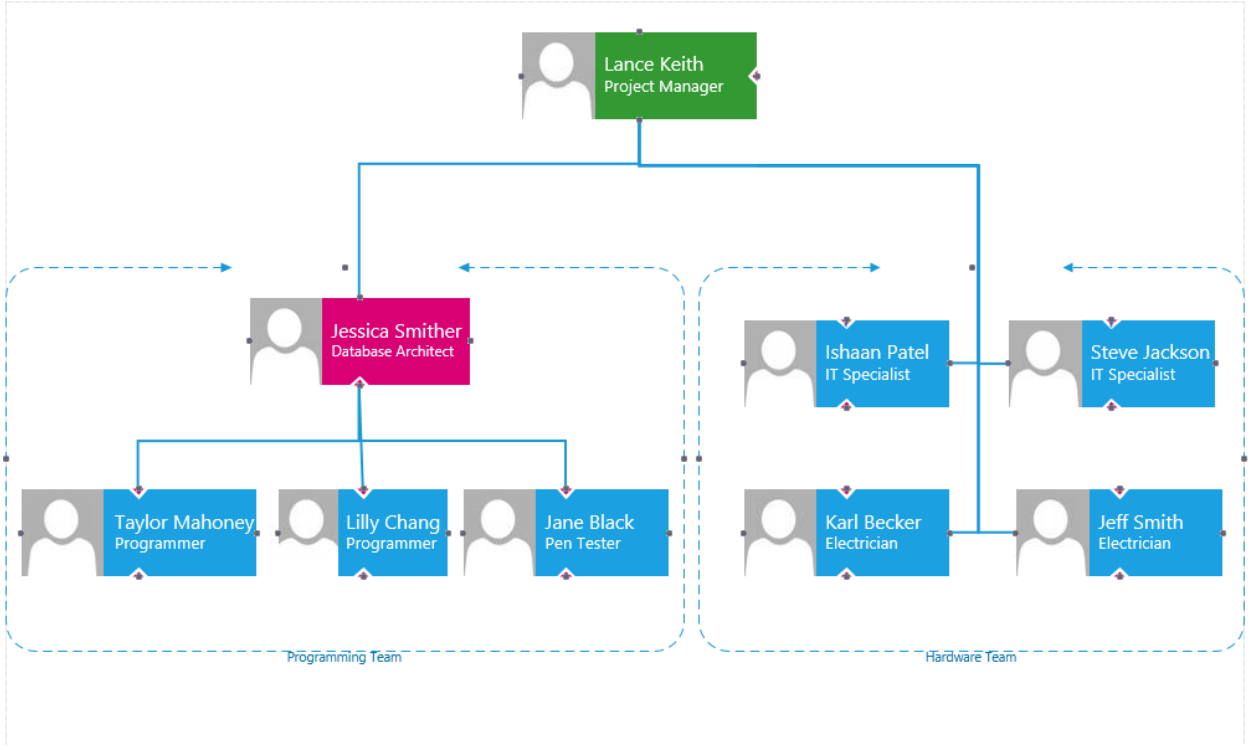
Overview

As previously mentioned in the project proposal and the project charter, the goal of this project is to migrate the database for Indy Investments Corp. to a cloud-based system, rewrite the code to reflect modern standards, and to set up the physical hardware at each of the two new locations. At this time, we have budgeted $300,000 to pay for labor, materials, and an extra $10,000 for risk management. The expected timeline for this project is 6 calendar months, with an additional 2 months allocated for training of team members at each location. The deliverables are as follows:

1. A full description of the scope, budget, and schedule for this project. This will lay out a detailed plan for the entire project and will be delivered at the start of the project.
2. Any additional documentation that becomes necessary throughout the length of the project. This includes any and all changes that may need to be made on the fly as they apply to the scope, budget, or timeline of the project. It is beneficial to all parties to put these changes in writing.
3. The physical hardware needed for designing each local network
4. The finished network at each location, complete with database access points in the form of two local servers
5. The finished code for the translated database, in a .zip file
6. Any needed materials for training of staff, as well as quick guides so that it is easy to trains new employees after our IT team has moved on

Project Organization

Because this is a small team, we are sticking to a simple project organizational structure. Here is a diagram of our intended structure:



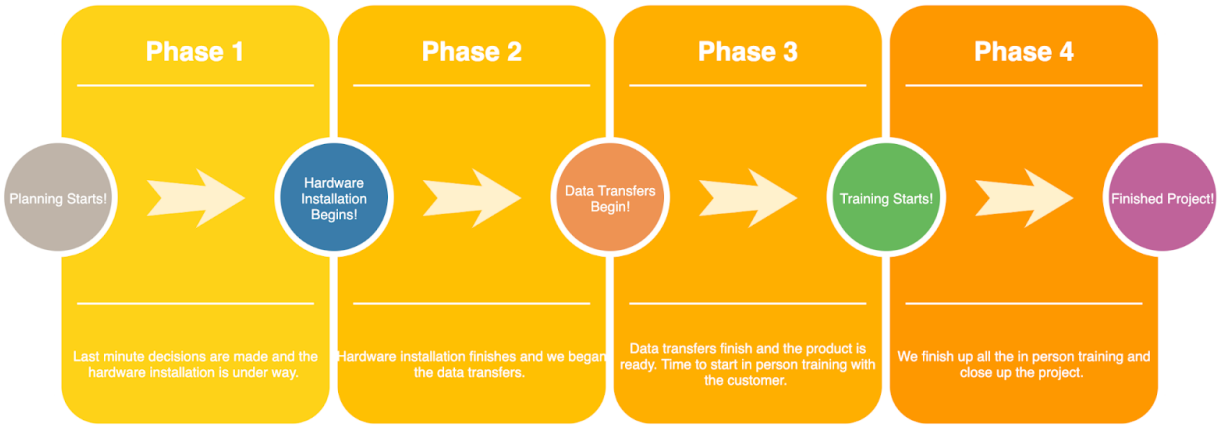
In case the diagram does not properly clarify, all team members will report directly to the project manager, except for the programming team, who will all report to the Database Architect. The Database Architect will then report to the project manager.

Managerial Process Plan

At the start of the project, a meeting will be held with all team members and stakeholders to go over the road map for the entire project. This will give everyone a clear idea of what is expected of them and how they can get started on the project. In order to properly oversee the project, the Project Manager will conduct regular meetings with staff members, as well as keep an open line of communication via email for TMs to address any issues on the fly. Because this

is a relatively small team, all team members can join these meetings if they wish, or if directed by the project manager. Apart from the regular staff meetings, intended to take place once a week, on Mondays, the Project Manager will hold stakeholder meetings with the CEO of Indy Investments Corp. and any other stakeholders who wish to join the meetings, including staff. The stakeholder meetings will take place on Fridays. The content of each meeting will be provided ahead of time for each meeting, so team members may prepare. The general themes will be progress reporting for the week, addressing any issues a team may have, and laying out a basic plan for the week ahead. If issues arise that require a change in any of the three constraint areas, the project manager will write up a change form with the input of the applicable team members to be submitted to Indy Investment Corp. for review and approval. These changes will be discussed in staff meetings unless they require urgent attention, in which case they will be directly addressed by the project manager ASAP. The Project Manager will gather all deliverables to be given to Indy Investment Corp at the end of the project. At that time, a meeting will be conducted with the CEO and staff members at IIC and with the IT Specialists to plot out a course for training on the new database.

Technical Process Plan



The Technical Process Plan is broken down into four phases. The four phases are as follow:

Phase 1

The first phase will be discussing the main risks involved with the project. This will also be the main time for the Indy Investment Corp to give us any last-minute ideas or requests they have. This phase is where everything will be planned, and we get the schedule for everything finalized. All tough decisions need to be made and we need to finalize all plans. This will also be the time that the electricians start the process of the installation of the hardware at the respective office locations.

Phase 2

Going into the second phase the installation of all the hardware will be underway. All hardware will need to be installed before this phase is over. This phase will set the way for the beginning of the actual data transfer. Our data architect will be finalizing all plans so that the transfer can start immediately into phase three transfer.

Phase 3

The third phase is where the bulk of the project will be completed. This will be by far our longest phase as the entire data transfer will happen in phase 3. The programmers will be well on their way writing programs and working out bugs that arise.

Phase 4

The fourth and final phase will be the training phase. This phase is where the in-house training will begin with the employees. This will be the time to fix any minor issues found while training and to tweak any areas that employees need changed slightly. This will be the closing phase and the completion of the project to scope and quality standards. The IT specialists Ishaan and Steve will be onsite for two months making sure every employee gets the proper training and

time to ask questions. They will be on site fixing minor bugs and being our eyes and ears. Any more complex issues will be communicated back to our offices for assistance from the programmers.

Supporting Process Plan

Purpose

The purpose of this support plan is to guide the support of LJT Database Solutions' Database Cloud Transition.

Scope

The scope of this support plan includes support for:

- Re-writing the database in SQL
- Setting up physical servers at both locations
- Porting the database to an Oracle cloud server
- Training team members how to navigate the database
- Intended Audience:
- Project managers
- Project stakeholders
- Developers
- Support Staff

Objective

The support objectives for this document are stakeholder issues as they arise and to prevent future issues. Creating answers to any questions that stakeholders might have while creating a connection with them.

Assumptions

Support will be given for this database migration from Monday through Friday between the hours of 9AM to 5PM with special exceptions due to failures not related to the customer.

Strategy

Support for the project will last for as long as the customer needs support, and as long as the upkeep charge is paid. Revisions to the plan are intended to be few and must be made through a written change form that will be provided to the client. Changes will be granted as long as they are within reason but changes to the budget may occur as a result.

Acceptance Criteria

The project is to be considered acceptable for the client, stakeholders, and end-users if:

- All major functions of the database that can or may affect the usability are functioning.
- Load-bearing tests are successful and impact on the servers is not severe.
- Migration of databases is accurate.
- Database access is available to at least 5 significant figures.
- Sufficient security functions are in place to ensure only those who are meant to have access to the database are able to.

Support Environment

The database software used on the servers will be IBM's Db2 using the latest vendor version at the time of approval. This software will be installed on Dell PowerEdge rack servers in both locations. The severs will be written in SQL using Amazon Relational Database Services.

Responsibilities

Software maintenance requests and system administration questions are to be directed to Ishaan Patel at Patell@LJTDatabaseSolutions.com and Steve Jackson at JacksonS@LJTDatabaseSolutions.com. User support questions are to be sent to Lilly Chang at ChangL@LJTDatabaseSolutions.com.

Pt. 4 Scope Management Plan

Introduction

The purpose of the Scope Management Plan is to ensure the project is composed of all the work required, and only the work required, to successfully complete the project. The processes defined in the following sections provide a blueprint for how scope will be defined, developed, verified, and controlled. This Scope Management Plan documents the scope management approach, defines the roles and responsibilities, processes, and procedures for managing scope, and serves as a guide for managing and controlling project scope.

Approach

This Scope Management Plan addresses the following processes:

- Scope Definition
- Work Breakdown Structure (WBS) Creation
- Scope Validation
- Scope Control

These processes interact with each other and with the processes in the other management plans defined in the project management plan. When implemented properly, the scope management processes will help manage time, schedule, and cost.

Scope Management Processes

Definition of Scope

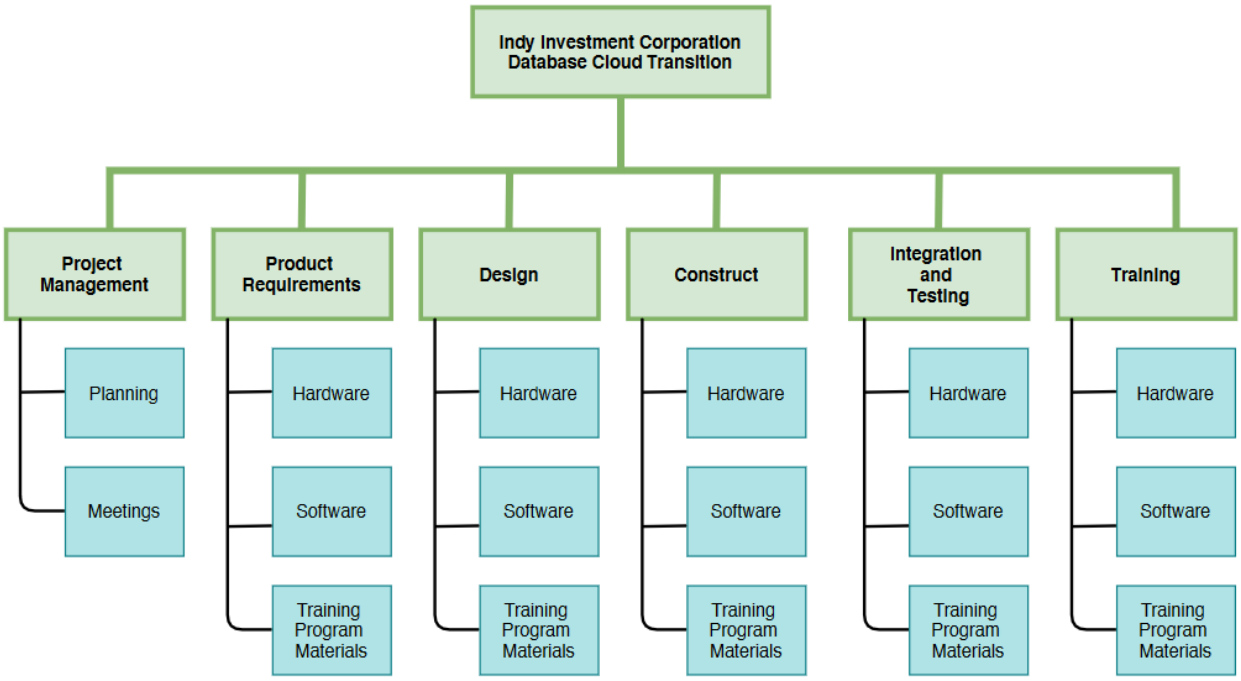
Scope as defined for the project includes:

- Re-writing the database in modern SQL
- Changing the database to have the same functionality it previously had.
- Setting up the physical servers at facility locations.
- Porting the database to an Oracle cloud server that will have limited access to.
- Setting up an automatic upload of the database to the aforementioned Oracle cloud server.
- Training team members how to navigate and edit the re-written database.
- Bug fixing issues with the database as they arise.
- Providing on-site assistance of the database for two months following the installation and migration.

Scope does not include:

- Teaching facility employees how to write in SQL.
- Additional changes to the database outside of restoring it to the SQL equivalent of what it was before.
- Maintenance to the environment outside and around the servers.

Work Breakdown Structure (WBS) and Dictionary



Planning: All work that needs to be done before project work can be completed.

Meetings: Designated times to meet with the team and/or other stakeholders

Hardware: The acquisition of a work package's hardware needs, such as computers and cables

Software: The writing or coding of software necessary for a work package's completion

Training Program Materials: A package's contribution to the final training materials meant to be distributed to personnel at IIC.

Deliverable Validation and Acceptance

Control Scope

Any request for change in the project scope will be processed through the project's change management procedure. All requests must come in using the project change request form that is provided to the customer. Once we receive the form the proposed changes will be discussed among the team and notes will be made for a meeting with the stakeholders. After all concerns are gathered, the project manager, important stakeholders, and the customer will discuss the necessity of the changes. If all agree that said change is necessary, all necessary documents for the project will be updated to reflect any changes that have occurred along with an explanation of the change and why it was changed.

Pt 5. Project Schedule Management

Schedule

(See attached .mpp file)

Schedule Management Plan

As discussed previously, in the overall project management plan, the main mechanism by which the schedule will be managed is through weekly staff meetings in which time management is assessed and corrected as needed. Plenty of time has been given for each task as indicated by the schedule. The deadlines are lenient enough to allow for some problems. The best way each member of the team can stick to the schedule is by avoiding all out-of-scope work.

Part 6: Cost Management

Cost Estimates

Based on our current calculations, there are three possibilities for the total cost of this project. The low estimate, meaning that nothing goes wrong over the course of the project to

the point in which it is finished early or below expected price is $270,000. The most likely estimate, meaning the price if the schedule is kept and all prices remain the same is $290,000. The high estimate, meaning the price if the schedule is not met, or unexpected costs are incurred is $310,000.

Cost Breakdown

All of these estimates are based on the following calculations:

- Salaries (Based on 6 months employment): $270,680
    - Project Manager: $57,500 (Salary: IT Project Manager | GLASSDOOR)
    - Database Architect: $52,500 (Salary: Database Architect | GLASSDOOR)
    - Database Programmers (2): $75,000 (Salary: Database Programmer GLASSDOOR)
    - IT Specialists (2): $80,500 (Additional 2 months of support) (Salary: IT Specialist | GLASSDOOR)
    - Penetration Tester: $51,580 (Salary: Pen Tester | GLASSDOOR)
    - Electricians (2): $61,000 (Salary: Electrician | GLASSDOOR)
- Materials: $20,562
    - CAT6 Gigabit Ethernet: $1,900 (Fast Cat 6 | AMAZON)
    - Servers (2): $16,000 (Supermicro Server Box | NEWEGG)
    - Monitors (2): $360 (Westinghouse 1080p Monitor | NEWEGG)
    - Keyboards (2): $100 (Ergonomic Illuminated Keyboard | NEWEGG)
    - Mice (2): $26 (Logitech Optical Mouse | NEWEGG)
    - Wireless Access Points (16): $2,176 (Ubiquiti Access Point | NEWEGG)

All of the above salaries are half the median annual income for each respective position to represent the estimated 6-month time frame. There is no guaranty that that is the exact price to be paid to the members of the team, as a highly experienced professional may

earn a higher salary. The materials are what is expected to be needed to complete the project. They are based on market prices at the time of accessing their respective product pages on Newegg.com, a website that general offers the best prices on computer hardware. It is assumed at this time that no other hardware purchases will be necessary beyond what is outlined above. In the event that more or less is needed, the budget is subject to change.

Cost Management Plan

As with previous management plans, the best way that cost will be managed is by managing scope. Out-of-scope work will contribute to longer project time and thus, more expensive labor budgets. Weekly meetings and progress reports will be necessary to monitor progress and ensure the project stays within budget. Further, the project manager will work closely with the IT Specialists and Electricians to find the best solution, assuming that this current budget is not that solution. A week is allocated on the schedule for acquiring the hardware so as to allow plenty of time for bargain shopping and quality assurance. Quality hardware will ensure that the project team does not have to acquire more due to breakage or hardware failure. Finally, LJT will use a modern budgeting tool that keeps track of weekly spending to enable us to quickly respond to unexpected expenses or lack thereof.

Part 7: Quality Management

Introduction

Purpose of The Quality Management Plan

The Purpose of the Quality Management Plan is to make sure the project stays within scope that was previously agreed upon by our staff, the stakeholders, and final customers. Here at LJT Database Solutions we strive to make quality our number one priority and deliver a project that meets all QC standards. Quality will be checked and tested throughout the project in every aspect of the transfer. This includes everything from the actual hardware installation, new database, training of customer's staff, and final product. Testing of the software code will be done regularly to make sure no large-scale issues pop up and the team can remain on track with quality and performance standards. All hardware will be thoroughly checked before installation to make sure they meet hardware quality standards. Lastly the final product will be tested multiple times to find any glitches or issues in the system before rolling it out to the customer and stakeholders. After the product meets all quality standards it will be rolled out to the customer's staff for training.

Along the way if any quality issues arise with any of the areas contact the following person that the area belongs to. If installation of the hardware or the hardware itself doesn't meet quality standards contact Karl Becker. You can reach Karl by emailing BeckerK@LJTDatabaseSolutions.com. If the software doesn't meet quality standards reach out to Lilly Chang by emailing ChangL@LJTDatabaseSolutions.com. If there are any quality standards not being met in training and user support, then connect with Ishaan Patel by emailing PatelI@LJTDatabaseSolutions.com.

Quality Management Overview

Organization, Responsibilities, and Interfaces

Name	Role	Quality Responsibility
Lance Keith	Project Manager	Quality mentoring & coaching
Jessica Smither	Team Lead	Quality audits
Taylor Mahoney	Lead Developer	Quality Assurance
Karl Becker	Lead Trainer	Training

Tools, Environment, and Interfaces

Tool	Description
HW Monitor	Measures performance of the hardware
Selenium	Performs automatic tests on the servers
Load Impact	Limit testing
Bare metrics	Analytics
Paper trail	Backup and log monitoring
Bug Crowd	Security

Project Quality Management

Quality Planning

Meeting LJT's quality goals will look like a completed, functional database that is as free as possible of any bugs or glitches and is accessible via one of the branches' main servers. The database should be secure from any outside influence or interference, while still allowing for at-home work for IIC employees. On the hardware end, it will look like a completed office network with well controlled cable management, plenty of access points for wireless access to the network, and high transfer speeds between terminals and the network.

Quality Assurance

Quality is a huge priority for LJT database solutions. As such, there are some ways in which we assure this quality. Firstly, in the weekly stakeholder meetings we are open and honest about any quality issues so that all members of the staff have a chance to discuss possible solutions with other stakeholders. Secondly, the database architect, who will ideally have more experience than the other programmers, will be bug testing code each day to make sure there are no vital mistakes. The staff will also include a penetration tester, who is essentially paid to try and break into and exploit the network/database we design to make sure security is sound.

Quality Control

As with quality assurance, the best tool we have to control quality is the weekly stakeholder meeting. Allowing for the honest dialogue allows for on the fly adjustments to be made and follow up to be consistent. In the unfortunate event that a member of our staff is unable to deliver the quality result that we expect from the project, they will first be warned regarding the problem, and in the event that it is not addressed will be replaced. This is a last resort of course, and termination of an employment contract is only to be carried out if any costs associated with rehiring and retraining make substantial financial sense for the project.

Part 8: Human Resources Management Plan

LJT Employee Code of Conduct

Here at LJT Database Solutions all employees must follow the organizations Code of Conduct. This Code of Conduct should help employees deal with ethical challenges. Employees are expected to act in accordance with the Code of Conduct and be exemplary employees. The following are the general guidelines that each employee of the project team must abide to.

- **Show dignity and fairness**. All employees are encouraged to treat each other with respect no matter a title or position. We are to treat everyone's ideas equally and of the same importance.
- **Be reliable**. As a project team we want to be reliable and project that we are a team you can count on. We will always produce the best product we can that is also up to quality standards.
- **We want continuous improvement**. We believe that we can always improve and are open to hearing new ideas and techniques. We look to always grow our knowledge and are continually growing each of our individual skill sets.
- **We believe in good fiduciary**. We make sure our clients feel they can always trust our company's ability to manage all costs and property. We strive to protect all our clients' information and property. We actively control all of our accounting, record keeping, and time keeping so that we are transparent throughout the project with our client.
- **We are always transparent**. As employees of a team transparency is key. We need to communicate with each other and the client. We strive to continue our transparency to all future clients as well. We like that as employees we can trust one another and show our clients they can have trust in us.
- **Be honest at all times.** If things aren't going as planned speak up before the problem gets larger. Problems are easier to fix when they are smaller rather than larger.
- **Be responsible for your actions**. All employees should own up to their actions and be open to the consequences. It is also your responsibility to let leadership, or

someone know of any illegal or unethical dealings. Like the saying goes, “if you see something, say something!”

- **Be respectful to everyone**. This should go without saying to respect your colleagues and their ideas. We won’t always agree but it is your job to be civil with one another when dealing with disagreements.

Responsibility Assignment Matrix

Team	Software	Hardware	Acquisition	Implementation	Support
Leadership	**R**		**R P**	**R**	**R**
Programming	**R P**			**R P**	
Electric		**R P**		**R P**	
IT				**R P**	**R P**

Time Elements of HR

All members of the team will be held to a strict schedule, with leniency regarding personal or family issues and illness. Management should not expect employees to work outside their scheduled hours except when approved by the team member. Schedules will be reasonable and will be in compliance with all local labor laws or industry standards. Paid lunch hours must be offered to every team member each day, which they may forego if they see fit. In the event the employee foregoes their paid lunch hour, they will be allowed to leave work one hour early, work permitting. For further elaboration, see the schedule management plan.

Part 9: Communications Plan

Summary

Most of the communications involved with the project will be handled by the project manager. The project manager will disseminate relevant information to all stakeholders at the appropriate time and frequency as laid out by this plan. The project manager will also develop and maintain communication pathways for the rest of the team.

Pathways

Email

Email will be heavily relied upon when communicating with stakeholders that are not directly involved with the project team. This is how documents and reports will be sent out to the client and to vendors. It is also how we will send and receive invoices. For direct questions that do not need to be addressed/seen by every stakeholder.

Slack

A Slack chat will be open and available for all project team members. Because this is a relatively small team, there is no need to have multiple rooms. This is where members of the project team will communicate if they need a quick answer or assistance. Team members are allowed to use this form of communication outside of work hours but are encouraged not to do so and are certainly not required to.

SharePoint

This is where all relevant documents will be stored when they are in a publishable form. This SharePoint will be made available to all stakeholders, but with permission restrictions. Certain documents will be internal only, or leadership only. Documents that are in progress should not be stored here, as edits taking place in multiple places will result in version nightmares.

Google Drive

This is where live documents will be before publishing. This enables all contributions to be made in real time. When they are ready for publishing, they can go to the SharePoint.

Meetings

Meetings will take place weekly or as needed. See the Managerial Process Plan section in Part 2 of this document for more details.

Project Updates

In addition to the weekly meetings, brief status reports will be shared among the team at the end of each project workday, with more detailed reports to be sent out Friday before each team leaves for the weekend. Any issues or concerns will be addressed at the next stakeholder meeting. Stakeholders will receive complete progress reports at those meetings, with more detailed reports when each project milestone is met.

Part 10: Risk Management Plan

Summary

This plan is intended to lay out all the ways that risk will be identified and managed. This includes all of the ways in which the project schedule, costs, or scope may be impacted by said risks. This plan will be updated as risk is encountered or identified.

Risk Identification

Based on the intended outcome of the project, the following potential risks have been identified:

- Due to global supply chain shortages, materials needed to complete the office networks could be delayed, or costs could be higher than expected
- Due to a hiring crisis, finding the right help for this project may be difficult
- Because there is a lot of electrical work involved with building the physical networks, electrical workers may be at risk of injury
- Because of the age of the existing database, there may be more errors in the new code than expected, or errors when porting the database to the cloud
- Due to the global pandemic, an especially bad wave of cases could limit our ability to work in-person, and employees may contract the virus, requiring time off.
- Based on the terms of the contract, the customer may end up paying more for the project than projected

Risk Analysis

Most of the risks associated with this project are low impact, apart from possible delays due to sick employees or supply. Most of these risks must be accepted as unavoidable, with a few exceptions. On the matter of employee safety, there are some risk avoidance and mitigation techniques that will be implemented.

Risk Responses and Reporting

Rigorous safety procedures will be put in place to reduce the risk of employee injury. In the case that it does occur, the project will be insured so that any medical expenses can be paid without expense to the employee. Out of an abundance of caution, employees who show symptoms of COVID-19 will be quarantined for 10 days, or until cleared by a doctor. To reduce the risk of symptoms going unreported, employees will be paid for this time.

On the matter of supply chain issues, all equipment will be ordered well before it is needed so as not to slow down the project. In the event that product is shorted, the project manager will continue to order it until it does arrive. Cost discrepancies from the attached estimates will be reported to the client before the purchase is made, and a change form will be sent to them for approval. This change will act as an amendment to the project documents.

To attract good help, higher than average compensation packages will be offered to members of the team.

The progress reports as mentioned in Part 9 will serve as means to keep the project from falling behind schedule. If it can still not be avoided, the client will be notified so that they can adjust their expectations.

Part 11: Procurement Management Plan

Document Control

Document Information

	Information
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Version	Issue Date	Changes
[1.0]	12/14/2021	Initial document.

Procurement Design and Process

The supplier of the servers for this project will be determined through a cost analysis where the goal is to have the lowest cost possible while not sacrificing quality for the client. The company is very likely going to purchase said server from Amazon or Newegg to take advantage of their high volume of stock which will enable us to purchase it at a low cost without needing to purchase a lot of product and store it ourselves. These servers will be backed up on an online AWS cloud server as they are known for their reliability and lower cost.

The installation of the servers will all be done by inhouse talent, and the transferring of previous server contents will be done by our server technician. Measures will be made to ensure the transfer of the contents of the previous server is done correctly and if there are any corrections that need to be made it will be made by our software developers that specialize in SQL.

Software for the server will be purchased from Microsoft as the SQL Server 2019 Standard edition.

Billing for all these will be tracked as they are purchased and at the end of the project before the server maintenance starts the client will be present with the bill.

After the payment is sorted out, we will ensure their will be one of our technicians present with the client for the next 2 months to ensure that if any issues arise from the transferring of the data, it will be fixed. Afterwards if the client still needs help, they are welcome to negotiate keeping the in-person technician for longer or are welcome to use technicians from other companies.

Contract

The type of contract that will be used for this project will be a cost-plus incentive fee (CPIF) contract. In this case we are the supplier so the customer will pay us when the installation has been completed. This assumes the customer is to pay the cost of the materials needed for the installation, man hours worked for the installation, a fee associated with the purchasing of the materials and man hours worked. The additional fee will end up being 20% of the total cost of the installation before the cost of the server maintenance. The cost of the two months of on-site server maintenance will be paid for right after the server is installed and if the customer does not feel as though they need to keep onsite maintenance this fee is non-refundable.

Procurement and Contract Risks

Risk Description	Likelihood and Impact	Mitigating Actions
Server does not work properly upon arrival and must be sent back and a new one be purchased.	Low likelihood, high impact.	Ensure the highest quality shipping is paid for and insurance is paid for to hopefully prevent this issue.
Server arrival is delayed.	Low likelihood, moderate impact.	Ensure the fastest shipping is chosen without sacrificing safety to the product.
Server software is delayed.	Low likelihood, moderate impact.	Contact Microsoft and ask if they would send the software in a digital format first.

Information from previous server is corrupt upon transfer.	Low likelihood, low impact.	Create a backup of the old server.
Information is altered in a negative way when modifying the new server.	Moderate likelihood, low impact.	Create backups of the server after every change.
In-house server technician calls off for the day.	Moderate likelihood, low impact.	Have a backup technician to show up just in case.
Server is compromised from an unauthorized source.	Low likelihood, high impact.	Enable a 3-factor authentication that includes a server key, phone authorization, and a password that resets every day.

Procurement Milestones

Date	**Milestone**
02/01/2022	Servers and software purchased.
03/15/2022	Installations are completed.
04/01/2022	Server transfer completed. Onsite server maintenance begins.
06/01/2022	Onsite server maintenance ends.

Integration of Procurement Activities

Project area	How the supplier will be integrated
Scope	The time it takes the supplier to ship the server and the software will be added to the scope when information is obtained.
Schedule	The time it takes the supplier to ship the server and the software will be added to the schedule when information is obtained.
Documentation	The supplier's documentation will be shared and with the client when it is received.
Risk management	The supplier's risk assumptions will be added to our risk management plan.
Reporting	A weekly status report will be created for the project and will be shared with all parties associated with the project.

Performance Metrics

The performance of the project will be determined by these factors:

- Quality of the server ordered vs. quality of the server received.
- Delivery on time and in the right condition.
- Ordered price versus invoiced price.
- Ease of setup.
- Server downtime.
- Rate of error per 100,000 lines of SQL code.

Roles, Responsibilities and Sign-Off Authorities

Role	Responsibility	Sign-off authority
Project Manager	Project review & negotiations	500k
Server installer	Installation of servers and maintenance	None
Server migration manager	Transfer of the SQL code from server to server and to the AWS Cloud server.	10k
Legal Reviewer	Legal guidance	100k

Assumptions and Constraints

It is assumed that day-to-day equipment and services for the running of the project will be available through existing provision. For example, office space or working from home space, Wi-Fi, computers, online document repository, Microsoft Office or compatible equivalent, printers, teleconferencing, and video conferencing services.

Legal Jurisdiction and Currency

The state of Indiana under the guise of the US dollar.

Prequalified Sellers

- Amazon
- Newegg
- Microsoft

In the unlikely these sellers do not have the product they are assumed to have, a meeting will be called with the client to determine which company the servers or the software should be purchased from.

Part 12: Stakeholder Management Plan

Summary

Project stakeholder management is very important to a successful project. Stakeholders are a vital part of the project management framework. Stakeholders hold a number of roles and are from many different areas of the project. Stakeholder's influence and power will depend on their roles in the project. Some stakeholders may have influence but, lack the power needed to really change the project. LJT believes it is extremely important to keep all key stakeholders involved throughout the project and have communication lines open for back-and-forth communication.

Stakeholder Register

Identifying the key stakeholders is a very important process in the project. The use of a stakeholder register is important in the communication process of the LJT Database Solutions Database Cloud Transition Project. Below is the stakeholder register created for this project.

Stakeholder Register

Project Name:	LJT Database Solutions Database Cloud Transition (Indy Investment Corp.)	Date:	11/1/21
Project Phase:	Planning		

Name of Stakeholder	Role	Department	Role in Project
Lance Keith	Project Manager		Internal Project Manager
Phillip Johnson	Project Sponsor		
Jessica Smither	Team Member	Software Dev	Database Architect
Taylor Mahoney	Team Member	Software Dev	Lead Programmer
Jane Black	Team Member	IT	Penetration Tester
Karl Becker	Team Member	Electrical	Electrician
Mike Russell	Vice President of Indy Investment Corp.		Customer
Sarah Jenson	Senior Project Manager of Indy Investment Corp.		Customer

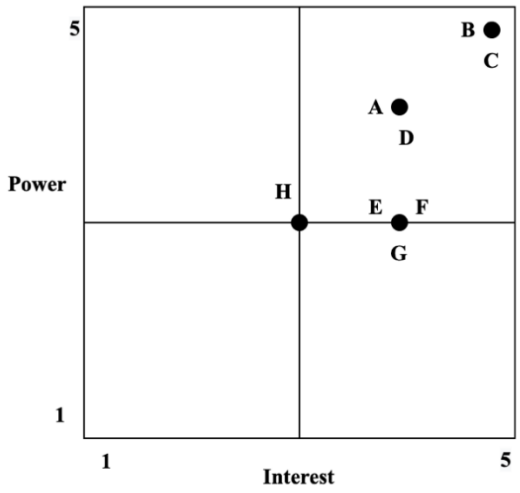
Stakeholder Power and Interest

All the key stakeholders have varying amounts of influence on the project and interest in the project. Some of the key stakeholders will determine everything that happens in the project while some only can give input. Below we have included a table and grid plot showcasing the individual power and interest of all the key stakeholders.

Power and Interest Key Stakeholder Table

Stakeholder Information				
Key	**Name**	**Role**	**Power (1-5)**	**Interest (1-5)**
A	Phillip Johnson	Project Sponsor	4	4
B	Lance Keith	Project Manager	5	5
C	Jessica Smither	Team Member	5	5
D	Taylor Mahoney	Team Member	4	4
E	Jane Black	Team Member	3	4
F	Karl Becker	Team Member	3	4
G	Mike Russell	Vice President of Indy Investment Corp.	3	4
H	Sarah Jenson	Senior Project Manager of Indy Investment Corp.	3	3

Power and Interest Grid Plot



Stakeholder Management Plan

The stakeholder management plan is vital to a successful project. It keeps the communication lines open with the key stakeholders. It shows which individuals have the most influence and power on the project. This way the team knowns which key stakeholders take precedence over others.

Stakeholder Management Plan							
Stakeholder	Title/Role	How much does the project affect them? (High 1-3 Low)	How much influence do they have? (High 1-3 Low)	What's the stakeholder's most important goal?	How will they contribute?	Best way to manage?	Contact Info
Lance Keith	Project Manager	1	1	To stay within scope, time, and budget.	Daily meetings and will delegate small projects.	Daily and weekly checkings with the team and all stakeholders.	KeithL@LJTDatabaseSolutions.com
Phillip Johnson	CEO/ Project Sponsor	2	2	Making sure the project is on track and the team has what it needs.	Needs to be kept up to date with progress and issues.	Keeping in good communication with the project manager.	JohnsonP@LJTDatabaseSolutions.com
Jessica Smither	Data Architect/ Team Member	1	1	Make sure the software team stays on track and work out the bugs.	Keeps everyone on track and tests software progress every couple days.	Keeps programers on track and testing software for issues.	SmitherJ@LJTDatabaseSolutions.com
Taylor Mahoney	Lead Programmer/ Team Member	1	2	Keeping the team on tracking and guiding them when needed.	Guides programmers with dirrection of project.	Mentoring and guiding the programers.	MahoneyT@LJTDatabaseSolutions.com
Jane Black	Penetration Tester/ Team Member	1	2	Finding the weakness in the program.	Little to none, keeps project manager informed of progress and issues.	Lets the project manager know if there are issues that need to be known.	BlackJ@LJTDatabaseSolutions.com
Karl Becker	Electrician/ Team Member	1	2	Making sure all equiptment is hooked up and working correctly.	Little to none, keeps project manager informed of progress and issues.	Keeps other coworkers on track. Handles any hardware issues.	BeckerK@LJTDatabaseSolutions.com
Mike Russell	Vice President of Indy Investment Corp.	3	2	Making sure his company is getting the product they need.	Very little contribution, kept in communication weekly.	Communicate weekly with Sarah and Lance.	RussellM@IndyInvestmentCorp.com
Sarah Jenson	Senior Project Manager of Indy Investment Corp.	2	2	Making sure lines of communication stay open and everything is staying on track.	Very little contribution, kept in communication weekly.	Communicate weekly with Lance and his team.	JensonS@IndyInvestmentCorp.com

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