Oakland County
Department of Information Technology
Project Scope and Approach

Project Name: Codefest Event **Project ID: TT9186CF**

Leadership Group: IT Steering Committee			
Department: Information Technology		**Division: Technical Services and Networking**	
Project Sponsor: Jim Taylor	**Date Requested: 6/14/2018**		**PM Customer No. 186**
Request Type: New Development			
IT Team Name: Enterprise Architecture		**IT Team No: T**	
Project Manager/Leader: Bob Olech			
Account Number: 17030	**Account Description: Technical Services and Networking**		**Customer Name: Information Technology**
Grant Funded? No		**Mandate? No** **Mandate Source:**	

Project Goal

To host a Codefest event in which IT Staff collaborate intensively on software projects for a very specific timeframe so that there is a space to allow individuals the freedom to innovate and create Artificial Intelligence for use in the County.

Business Objective

Joint-collaboration for innovation, possible cost reduction, better services and improved business processes.

Major Deliverables

1. Codefest Event announcement
2. Education on the Amazon platform
3. Proposals for Codefest
4. Conduct a two-day Codefest
5. Working prototypes on identified topic

Approach

1. Identify topic for Codefest
2. Identify a technical support team to assist with Codefest
3. Develop marketing and promotional materials
4. Recruit teams
5. Team formation and proposal development
6. Host two-day Codefest
7. Final presentations and awards
8. Fund a potential Codefest innovation project

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Research & Analysis

Gartner Research Recommendation: For this analysis, "Codefest" is another name for "Hackathon".

Hackathons and similar activities are examples of ways that leading organizations experiment with new talent, work and organization models.

Hackathons should be held with a regular cadence, rather than as a one-off event. The timing of these hackathons may be aligned with the release of new datasets or APIs to gather feedback and encourage usage. Hackathons may also be performed inside the organization to promote business innovation and address workforce needs.

Artificial intelligence will have a profound impact on how we will work — some jobs will become obsolete, others will be created, most will change. IT leaders must orchestrate changes in their enterprise's workforce as seriously as they seek to reap the business value of AI.

Transform from episodic or nonexistent learning to continuous learning to reduce employee churn and sustain growth. Work to upskill employees to maximize the effects of AI-enabled roles and decisions.

Test and evaluate the impact of AI on jobs and tasks across all work categories. Consider what organizational structures will best support new business models and how to engage talent.

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users All of IT

Divisions Information Technology

Leadership Groups IT Steering Committee

Risk

Business Environment Low

Technical Environment Low

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Assumptions

Staffing IT Staffing: resources will be available for the hours indicated per the attached project plan.

Other Staffing: additional staffing will be available as follows:

Role:	Name	Hours per Day
Project Sponsor	Jim Taylor	As Needed
CIO	Phil Bertolini	As Needed
CISO	Bridget Kravchenko	As Needed
IT Director	Mike Timm	As Needed
TSN Manager	Carl Wilson	As Needed
Application Services Manager	Tammi Shepherd	As Needed
Internal Services Manager	Janette McKenna	As Needed
CLEMIS Manager	Jeff Nesmith	As Needed

Facilities

- Oakland Schools Facilities (already provides for adequate WiFi access which lowers cost)

Technical

- The AWS Cloud is available to facilitate requirements for Codefest
- Laptops will be available from current inventory to provide equipment to participants
- Data is available in the Cloud or will be transferred to the Cloud to be utilized as part of the Codefest

Funding

- Technical Services & Networking

Other

- Utilize Quarterly Department Meeting for Kickoff and Final Presentation and Awards
- Utilize Oakland School Food Services (cost could be higher) - this is a requirement for catering when renting Oakland Schools Facilities
- The Sizing Plan was based on 25% Allocation; assume full allocation for participants thus bringing in the date.
- Prizes will be provided by Amazon however; costs were provided without sponsorship

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Priority

Constraints

Exclusions

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PROJECT PHASE AUTHORIZATION

Phase(s): All	
Total Estimated Application Services	**Hours: 797**
Total Estimated Technical Systems	**Hours: 1,059**
Total Estimated CLEMIS	**Hours: 118**
Total Estimated Internal Services	**Hours: 0**
IT Application Services Division Manager Approval:	**Date:**
IT Technical Systems Division Manager Approval:	**Date:**
IT CLEMIS Division Manager Approval:	**Date:**
IT Internal Services Division Manager Approval:	**Date:**
IT Management Approval:	
Approved: Yes No	**Date:**
Reason:	
Project Sponsor Approval:	
Title:	**Date:**

PROJECT SUMMARY

Authorized Development (see above)	**Hours:**
Preliminary Estimated Development for Future Phases	**Hours: 1,974**
Grand Total Estimated Development	**Hours: 1,974** **Cost: $325,710**

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PROJECT COMPLETION AUTHORIZATION

Customer Acceptance of Product:	
Title:	Date:
Project Office Review:	Date:

Codefest Event - Size Estimate (+/- 10% to 50%)

	Type	ID	Task Name	Estimated Hours	Estimate Notes
1	Phase	000000	PROJECT MANAGEMENT	442	
2	Phase	010010	TECHNICAL REQUIREMENTS	200	
3	Phase	020000	MARKETING & PROMOTIONS	178	
4	Phase	030000	PROPOSAL REVIEW & APPROVAL	202	
5	Phase	040010	IMPLEMENTATION	943	
6	Phase	050000	POST IMPLEMENTATION SUPPORT	9	
7					
1				1,974	

TT9186CF

Oakland County -- Codefest Event

Return on Investment Analysis

As Of: 6/14/2018

Project Summary

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Benefits/Savings:							
Tangible Benefits Subtotal:	0	0	0	0	0	0	0
Cost Avoidance Subtotal:	0	0	0	0	0	0	0
Costs:							
Development Services Subtotal:	331,210	0	0	0	0	0	331,210
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	0	0	0	0	0	0	0
Infrastructure Subtotal	0	0	0	0	0	0	0
Training Subtotal:	0	0	0	0	0	0	0
Other Subtotal:	0	0	0	0	0	0	0
Annual Statistics:							
Annual Total Savings	0	0	0	0	0	0	0
Annual Total Costs	331,210	0	0	0	0	0	331,210
Annual Return on Investment	(331,210)						(331,210)
Annual Costs/Savings Ratio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Project Cumulative Statistics:							
Cumulative Total Savings	0	0	0	0	0	0	0
Cumulative Total Costs	331,210	331,210	331,210	331,210	331,210	331,210	331,210
Cumulative Return on Investment	(331,210)	(331,210)	(331,210)	(331,210)	(331,210)	(331,210)	(331,210)
Cumulative Cost/Savings Ratio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Year Positive Payback Achieved							NO PAYBACK
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor				Date:			
Costs (including IT Resources) Reviewed By Information Technology Project Manager				Date:			

REV: May 21, 2018

Oakland County -- Codefest Event

Return on Investment Analysis

Savings Detail

Benefit/Savings Description	Project Savings Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Savings	Annual Multiplier
To learn and experiment with new technologies (i.e. Artificial Intelligence, AWS platform)	Intangible Benefit					0	
Provide a platform of creativity	Intangible Benefit					0	
Provide opportunity to improve current processes and create something new	Intangible Benefit					0	
Team Building & Collaboration	Intangible Benefit					0	
						0	
						0	

Oakland County -- Codefest Event

Return on Investment Analysis

Savings Detail

Benefit/Savings Description	Project Savings Category	Affects Project ROI? Y1	Y2	Y3	Y4	Y5	Y6	Potential Savings Extensions Y1	Y2	Y3	Y4	Y5	Y6
To learn and experiment with new technologies (i.e. Artificial Intelligence, AWS platform)	Intangible Benefit												
Provide a platform of creativity	Intangible Benefit												
Provide opportunity to improve current processes and create something new	Intangible Benefit												
Team Building & Collaboration	Intangible Benefit												

Oakland County -- Codefest Event

Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tangible Benefit							
Tangible Benefits Subtotal:							
Cost Avoidance:							
Cost Avoidance Subtotal:							
Intangible Benefit:							
To learn and experiment with new technologies (i.e. Artificial Intelligence, AWS platform)							
Provide a platform of creativity							
Provide opportunity to improve current processes and create something new							
Team Building & Collaboration							
Savings Total:							

Oakland County -- Codefest Event

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI? Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development - Year 1	Development Svcs	Technical Services & Networking	HR	1,974	165	325,710		X					
Food Estimates	Development Svcs	Technical Services & Networking	EA	1	2,500	2,500		X					
Conference Rooms - Oakland Schools (2 days)	Development Svcs	Technical Services & Networking	EA	2	1,000	2,000		X					
Prizes	Development Svcs	Technical Services & Networking	EA	1	1,000	1,000		X					
User Hours - New Development	Development Svcs					0							
User Hours - PTNE/OT	Development Svcs					0							
Contractor Professional Services	Development Svcs					0							
PC System - Acquisition	Hardware				687	0							
PC System - Maintenance	Hardware				2,936	0							
Notebook - Acquisition	Hardware				1,115	0							
Notebook - Maintenance	Hardware				3,024	0							
Tablet Notebook - Acquisition	Hardware				1,421	0							
Tablet Notebook - Maintenance	Hardware				2,800	0							
Laserprinter - Acquisition	Hardware				1,432	0							
Laserprinter - Maintenance	Hardware				1,408	0							
PC Maintenance User Owned	Hardware				2,720	0							
Printer Maintenance User Owned	Hardware				1,264	0							
File Space (100GB)	Hardware		ANN		23	0							
Package Software - Acquisition	Software					0							
Package Software - Maintenance	Software					0							
Business Objects Access	Software					0							
Term Emulation SFTW-Acquisition	Software					0							
Term Emulation SFTW-Maintenance	Software					0							
Server - Acquisition/Upgrade	Infrastructure				8,000	0							
Server - Maintenance	Infrastructure				360	0							
Server Sftwre - Acquisition/Upgrade	Infrastructure				335	0							
Server Sftwre - Maintenance	Infrastructure					0							
Server Rack Mount	Infrastructure				400	0							
Oracle Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure				21,372	0							
Oracle Enterprise Per Processor - Year 2 and Beyond	Infrastructure				3,432	0							

Oakland County -- Codefest Event

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI? Y1	Y2	Y3	Y4	Y5	Y6
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure				24,533	0							
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure				20,759	0							
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure				16,985	0							
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure				4,218	0							
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure				6,398	0							
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure				5,414	0							
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure				4,429	0							
SQL Server - Standard Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure				1,100	0							
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				3,506	0							

Oakland County -- Codefest Event

Return on Investment Analysis

As Of: 6/14/2018

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI? Y1	Y2	Y3	Y4	Y5	Y6
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				701	0							
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				13,180	0							
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				2,635	0							
SSL Certificate	Infrastructure				845	0							
Internet Access	Infrastructure				180	0							
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure		ANN		500	0							
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure		ANN		415	0							
Database (5 GB) on Consolidated SQL Instance Server	Infrastructure		ANN		930	0							
Database Instance (125 GB DB) on Consolidated SQL Server	Infrastructure		ANN		2,395	0							
Database SQL Maint Server	Infrastructure		ANN		834	0							
Database SQL Server Physical	Infrastructure		ANN		19,158	0							
DB Maintenance (Annual Cycle $610)	Infrastructure		ANN		610	0							
DB Maintenance (Semi-Annual Cycle $1220)	Infrastructure		ANN		1,220	0							
DB Maintenance (Semi-Annual Cycle $2440)	Infrastructure		ANN		2,440	0							
Dedicated Virtual Server	Infrastructure		ANN		4,150	0							
DB Instance Setup	Infrastructure				976	0							
DBA MS SQL Database Creation on Exisitng Instance	Infrastructure				366	0							
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = N/A	Infrastructure		ANN			0							

Oakland County -- Codefest Event

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI? Y1	Y2	Y3	Y4	Y5	Y6
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $951 On Premise Physical Server = $9,288	Infrastructure		ANN			0							
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $1,702 On Premise Physical Server = $9,751	Infrastructure		ANN			0							
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $3,167 On Premise Physical Server = $10,446	Infrastructure		ANN			0							
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $7,564 On Premise Physical Server = $12,906	Infrastructure		ANN			0							

Oakland County -- Codefest Event

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development - Year 1	Development Svcs	325,710.00					
Food Estimates	Development Svcs	2,500.00					
Conference Rooms - Oakland Schools (2 days)	Development Svcs	2,000.00					
Prizes	Development Svcs	1,000.00					
User Hours - New Development	Development Svcs						
User Hours - PTNE/OT	Development Svcs						
Contractor Professional Services	Development Svcs						
PC System - Acquisition	Hardware						
PC System - Maintenance	Hardware						
Notebook - Acquisition	Hardware						
Notebook - Maintenance	Hardware						
Tablet Notebook - Acquisition	Hardware						
Tablet Notebook - Maintenance	Hardware						
Laserprinter - Acquisition	Hardware						
Laserprinter - Maintenance	Hardware						
PC Maintenance User Owned	Hardware						
Printer Maintenance User Owned	Hardware						
File Space (100GB)	Hardware						
Package Software - Acquisition	Software						
Package Software - Maintenance	Software						
Business Objects Access	Software						
Term Emulation SFTW-Acquisition	Software						
Term Emulation SFTW-Maintenance	Software						
Server - Acquisition/Upgrade	Infrastructure						
Server - Maintenance	Infrastructure						
Server Sftwre - Acquisition/Upgrade	Infrastructure						
Server Sftwre - Maintenance	Infrastructure						
Server Rack Mount	Infrastructure						
Oracle Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure						
Oracle Enterprise Per Processor - Year 2 and Beyond	Infrastructure						

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Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure						
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server - Standard Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure						
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure						

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Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure						
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
SSL Certificate	Infrastructure						
Internet Access	Infrastructure						
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure						
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure						
Database (5 GB) on Consolidated SQL Instance Server	Infrastructure						
Database Instance (125 GB DB) on Consolidated SQL Server	Infrastructure						
Database SQL Maint Server	Infrastructure						
Database SQL Server Physical	Infrastructure						
DB Maintenance (Annual Cycle $610)	Infrastructure						
DB Maintenance (Semi-Annual Cycle $1220)	Infrastructure						
DB Maintenance (Semi-Annual Cycle $2440)	Infrastructure						
Dedicated Virtual Server	Infrastructure						
DB Instance Setup	Infrastructure						
DBA MS SQL Database Creation on Exisitng Instance	Infrastructure						
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = N/A	Infrastructure						

Oakland County -- Codefest Event

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $951 On Premise Physical Server = $9,288	Infrastructure						
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $1,702 On Premise Physical Server = $9,751	Infrastructure						
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $3,167 On Premise Physical Server = $10,446	Infrastructure						
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $7,564 On Premise Physical Server = $12,906	Infrastructure						

Oakland County -- Codefest Event

Return on Investment Analysis

Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Development Services:							
IT Hours - New Development - Year 1	325,710						325,710
Food Estimates	2,500						2,500
Conference Rooms - Oakland Schools (2 days)	2,000						2,000
Prizes	1,000						1,000
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
Development Services Subtotal:	***331,210***						***331,210***
Hardware:							
Hardware Subtotal:							
Software:							
Software Subtotal:							
Infrastructure:							
Infrastructure Subtotal							
Training:							
Training Subtotal:							
Other:							
Other Subtotal:							
Costs Total:	***331,210***						***331,210***

Oakland County -- Codefest Event

Return on Investment Analysis

Assumptions

Date	Assumption Description
14-Jun-18	Utilize Quarterly Department Meeting for Kickoff and Final Presentation and Awards
14-Jun-18	Utilize Oakland School Facilities (already provides for adequate WiFi access which lowers cost)
14-Jun-18	Utilize Oakland School Food Services (cost could be higher) - this is a requirement for catering when renting Oakland Schools Facilities
14-Jun-18	Laptops will be available from current inventory to provide equipment to participants
14-Jun-18	Data is available in the Cloud or will be transferred to the Cloud to be utilized as part of the Codefest
14-Jun-18	The Sizing Plan was based on 25% Allocation; assume full allocation for participants thus bringing in the date.
14-Jun-18	Prizes will be provided by Amazon however, costs were provided without sponsorship