**Western Governors University**

**C768 Technical Communication Task 1**

**Main Scenario for All 3 Tasks:**

You have recently been hired to work in your current field of study. Your new manager has informed you that the organization values innovation and asks that new employees write a white paper on an emerging technology, practice, or process in the field they studied in college. She has told you that after you write the white paper and post it on the company’s internal SharePoint site, you will also be creating several additional reports for different audiences: an executive summary, a press release, a FAQ, and a multimedia presentation that you will deliver to colleagues in your department. You will also need to write an email inviting your colleagues to your multimedia presentation.

1. Describe your organization. Make sure you include the following information:
2. Products or services your organization produces.
3. The size of your organization and its number of locations.
4. The industry of which your organization is a part.
5. Identify the emerging technology, practice, or process that will be the subject of your white paper, and then review at least 3works that have been written about your subject in the past five years. You will use this research to inform your white paper.

*Note: These other works may include interviews, white papers, research studies, or other types of work by industry professionals.*

1. Write a summary for each of the 3 works that you reviewed. The summary should include the title of the work, a discussion of the main topics, and an explanation of why the information is important.

C. Create a white paper, as defined in the learning resource for this course, that discusses an emerging technology, practice, or philosophy that is related to your academic field of study. This white paper will be reviewed by your immediate supervisor, as well as several thought leaders in your organization. The white paper should be 2-3 pages long and must include the following:

1. A thorough explanation of your chosen emerging technology, practice, or process, based on your research.

2. A compelling argument discussing how the emerging technology, practice, or process could benefit your organization.

D. Explain how the diction in the white paper is appropriate for its audience.

E. Acknowledge sources, using in-text citations and references, for content that is quoted, paraphrased, or summarized.

F. Demonstrate professional communication in the content and presentation of your submission.

**Note:** you should not move on to Task 2, since Task 2 will not be evaluated until Task 1 passed.

**C768, Task 1**

**Robert J. Robinson**

**Western Governors University**

Contents

[A. Organization Description 4](#_Toc79494390)

[A1. Products or Services Produced 4](#_Toc79494391)

[A2. Organization Size and Number of Locations 4](#_Toc79494392)

[A3. Organization’s Industry 4](#_Toc79494393)

[B. Emerging Tech, Practice, or Process Chosen 5](#_Toc79494394)

[B1. Summary and Importance 5](#_Toc79494395)

[C. White Paper 6](#_Toc79494396)

[D. Explanation of Diction 7](#_Toc79494397)

[E. Sources 8](#_Toc79494398)

## **Organization Description**

## A1. Products or Services Produced

We Double Go is a non-profit service provider of pre-screening and document assistance to impoverished citizens, assisting them to gain access to local, state, and federal benefits that will help egress out of their state of poverty. We provide a screener tool that calculates their expected benefits and assists in navigating the bureaucracy and needed paperwork so that the user knows what to expect and eases in the application for said benefits.

## A2. Organization Size and Number of Locations

We are a small startup that is attached to a larger parent company. We have approximately 10 employees, 6 of which are senior developers with over 10 years of experience each. We have many locations that we provide our services to, and our team is also a distributed team across the United States. Our main screening application is accessible through mobile and desktop browsers and is configurable in over 20 languages.

## A3. Organization’s Industry

Local, State, and Federal benefits programs are spread out through various departments through multiple departments. It can typically take an extended amount of time to research the programs and understand what ones a used and their families could qualify for. As we are unique in this space, we determined that if we knew all of the perimeters of all of the programs, we would be able to automate the calculation of potential benefits and assist users with their application to ease that burden. This pre-screener would allow faster access to sorely needed programs.

# Emerging Tech, Practice, or Process Chosen

## B1. Summary and Importance

“Serverless Architectures with AWS Lambda” is a white paper authored by various members of the AWS Lambda team at Amazon Web Services. The report provides a broad overview of Lambdas features and recommendations on how to build with a serverless mindset. Our company desires to take a cloud-native approach to handle software and infrastructure requirements. AWS Lambda markets itself as a “Function as a Service” service, where code can be broken down into micro-services and are not dependent on the cloud application. The paper then discusses serverless best practices, how to develop in the cloud, and configuration practices.

“Lambda Architecture for Batch and Stream Processing” is another white paper coauthored by the AWS Lambda team members. This paper describes best practices and approaches on how to handle streaming data and batch processing. Data ingestion, transformation, and export are critical parts of our application requirements. This paper discusses the pros and cons of the service while also outlining methods used to achieve desired results. Double Go will be ingesting a lot of service providers and user data that will need to be calculated in near time, and streaming this data through AWS Lambda provides the required compute power at a low cost. Development time is also reduced as there is no infrastructure to maintain.

“Security Overview of AWS Lambda” is again written and updated by the team at AWS. This paper on security provides a deep dive into security best practices and is aimed toward new adaptors of the service. The article describes having no servers to manage, the shared responsibility model, a staple in the AWS ecosystem, and how lambda has many different AWS services that it can utilize in its use and function both up and downstream. When Double Go designs systems, we take our security posture very seriously as we handle users’ sensitive data, and need to ensure that best practiced and followed. Great security starts with security focused design.

<Add your content here. Do 2 things: (1) Write a summary for each of the 3 works that you reviewed. The summary should include the title of the work and a discussion of the main topics; (2) Present an explanation of why the information is important.

The research summary includes at least three that are relevant to the white paper, and each source summary includes its title, discussion of main topics, and an explanation of why the information is important.

See Lesson 4.4 for more on Research Skills>

# White Paper

C1. What is so hot about Serverless?

Growing startups, seasoned enterprise, or high school students just learning that the cloud isn’t scoped to Facebook, are rapidly learning about the new movement if serverless. Processes and thought surround companies regarding flexible scaling, high availability, cost reduction, and limiting the resources wasted by having idle compute resources at low traffic times. Since 2006, Amazon Web Services (AWS) aimed to make scaling and building modern, robust systems easier and at lower costs. AWS reInvent:2014, an annual conference in Las Vegas, introduced the world to their newly released function as a service product called Lambda. A micro-service is a tiny function that usually only does one thing, and in the examples below I will describe how it will serve up a web app. Lambda supports over ten languages, lowering the barrier to entry, and allowing development teams to diversify their programming teams.

As we start developing our public API, we need to account for several key requirements that our consumers need. There are many things to consider such as documentation, authentication, and authorization. Our business stake holders want to have this API out into the public in less than 90 days. As a service provider, our service level objective (SLO) is to have an availability of 99.95% ( “3 1/2 9’s” ) , meaning that consumers of your public API can expect our service to just work. Remember that with a 3 1/2 9’s objective our API can only be unavailable for 4 minutes and 19 seconds in a thirty-day period.   
  
 Many AWS services are built around this very idea but is beyond the scope of this paper. I am proposing that we start to build this API using AWS Lambda. Lambda is an event triggered service that will run our functions every time their called. This function is deployed across the entire AWS footprint, which means that there is little latency in relation to the user, and AWS has a service level agreement (SLA) less than 99.95% but greater or equal to 99.0%. What this SLA means for us, is that by going serverless, we no longer have to worry about an application server going down. Lambda has completely automated the administration of this service and has built in fault tollerence.

Capacity planning is no longer needed when it comes to the API, as Lambda allows is to scale to what AWS describes as near infinite. That’s not entirely true, as we will have to provision concurrency, but the pricing plan is something that the stake holder will enjoy. We only pay for what is consumed on the API. Lambda pricing structure allows for the first 1 million requests to be free and the $0.20/million requests after that. This is a huge benefit for a start up like ours. This means that we don’t have to pre-pay for provisioned servers for traffic that we may not get. Lambdas flexible pricing structure allows for our API to grow at a rate that we can manage easily, and not be worried about surge requests. The AWS infrastructure will automatically scale out API as the demand increases, and then once the demand is lessened, it scales down.

As desc

<Add your content here, or upload separately and state the filename.

Expected length is 2-3 pages covering C1 and C2 below. Separate subsections are not needed because the white paper itself must cover these items:

C1. A thorough explanation of your chosen emerging technology, practice, or process, based on your research.

C2. A compelling argument discussing how the emerging technology, practice, or process could benefit your organization.

See **Lesson 1** and **Lesson 4: Constructing White Papers**. The White Paper should include all of the parts discussed in the text: **Cover page**, **Executive Summary**, **Introduction**, **Body**, **Conclusion/summary**, and **Page numbers** and **Copyright** in the footer.

Your point of view, or context, is up to you. For example, you could consider yourself a new employee introducing a new idea/technology/product/process to the company.>

# Explanation of Diction

<Add your content here. Discuss things like word choice/jargon, tone, register (level of writing formality) and purpose.

See **Lesson 1.1: The Writing Process** and **Lesson 4.3: Technical Writing Components**.>

# Sources

<Add your content here. All sources and their in-text citations should appear in APA format.>

Tip: Great APA site: <https://owl.english.purdue.edu/owl/resource/560/01/>

**DELETE THIS SECTION/PAGE BEFORE SUBMITTING**

**F. Professional Communication**

**What to do:** Your submission must be created with proper professional clarity, organization, and mechanics. This isn’t just grammar but the overall quality of what you’re presenting. Are paragraphs well-formed and contain industry-based information? Does the material flow in a logical pattern and are the headings easy to locate?

Note: Use a grammar checking software (Like the free version of Grammarly) to locate errors you might have in your submission.

Note: Your submission must be your original work. No more than a combined total of 30% of the submission and no more than a 10% match to any one individual source can be directly quoted or closely paraphrased from sources, even if cited correctly. Use the Turnitin Originality Report available in Taskstream as a guide for this measure of originality.

[Grammarly](https://www.grammarly.com/?q=brand&utm_source=google&utm_medium=cpc&utm_campaign=brand_f1&utm_content=76996511046&utm_term=grammarly&matchtype=e&placement=&network=g&gclid=Cj0KCQjw9JzoBRDjARIsAGcdIDVIuFe9c33tSvQwsR0qYHNXVp_gHBNu1rNNdSIiQZyvZyTJRkyrwKkaAgMBEALw_wcB) is recommended for checking articulation.

**DELETE THIS SECTION/PAGE BEFORE SUBMITTING**