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# CHAPTER ONE

## Introduction

As a developing country, Zambia is faced with many challenges in ensuring the health and well-being of its citizens. One of these challenges is the poor eating habits of many Zambians, who often struggle to access or afford a varied and nutritious diet. Studies have shown that many Zambians consume diets that are high in processed foods and low in fruits and vegetables, leading to a range of health problems including obesity, diabetes, and heart disease.

To address this problem, this dissertation proposes the development of a web application that uses a random generation algorithm to help users create a balanced diet for a week. The application will take into account the user's dietary preferences, allergies and other restrictions and generate a diet plan that is nutritionally balanced and easy to follow. The goal of this project is to improve the health and well-being of Zambians by providing them with an accessible and convenient tool for following a healthy diet.

Technology is an ideal way of solving this problem as it allows for a high degree of scalability, accessibility and personalization. The application can be accessed by a large number of people from any location with an internet connection, and the random generation algorithm allows for the creation of personalized diet plans that are tailored to individual preferences and requirements. Additionally, technology allows for the collection of data on user engagement and satisfaction, which can be used to improve the application over time.

## Background to the study

Zambia has taken several steps to promote healthy eating habits and address the issue of poor nutrition among its population, with a focus on high-risk groups such as diabetics and children.

1. The National Food and Nutrition Commission (NFNC) is responsible for coordinating and implementing nutrition policies and programs, with a focus on addressing the nutrition needs of vulnerable groups such as diabetics and children.
2. The Multi-Sectoral Nutrition Action Plan (MSNP) focuses on improving nutrition outcomes for pregnant and lactating women, infants, and young children, with a particular emphasis on addressing micronutrient deficiencies and promoting healthy eating habits.
3. The Scaling Up Nutrition (SUN) Movement is a global effort to improve nutrition outcomes, and Zambia is a member of this movement. Through its membership, Zambia has access to resources and technical assistance to support its nutrition programs and address specific issues such as diabetes and childhood obesity.
4. The Ministry of Agriculture and Livestock promotes the production of nutritious food in the country, with a focus on smallholder farmers and promoting sustainable agriculture.
5. Community-based nutrition programs run by NGOs and CBOs also focus on promoting healthy eating habits and addressing specific issues such as diabetes, through nutrition education and awareness-raising campaigns.

## Problem statement

Despite efforts made by the government and other organizations to promote healthy eating habits and address poor nutrition in Zambia, the country continues to face significant challenges in this area, particularly among high-risk groups such as diabetics and children. The dissertation aims to investigate the root causes of these challenges and propose a solution in the form of a web-based application that uses a random generation algorithm to help users create balanced diets for a week. The application could be a solution to help people overcome the challenges of poor nutrition in Zambia and improve the health outcomes of the population.

# REFEENCE