# Chapter overview

This chapter covers the evaluation and the justification of the methodologies that will be used to build the proposed project, also this chapters covers the research methodologies that will be used to accomplish a successful research. This chapter also briefly describes the available research methodologies and the approaches that are available when conducting a research.

Furthermore an in detail review will be done on the software development methodologies and the most suitable methodology will be selected.

# Research methodology

Research is a systematic process that is done to collect new and useful information for a topic. The information in a research can be gathered in various means as experienced/knowledgeable people, journals, books, magazines and even nature. A research will allow addition of knowledge and information to already existing information. A research is conducted with a main purpose of understanding what needs to be done/ followed to finalize an idea, and to find the evidence that is required to justify the solution.

Research methodology is a systematic way to solve a problem, it is a process of studying how the research is planned to be carried out and what means, and procedures will be used by the researcher to achieve the goal. By doing a research the researcher will have a plan that needs to be followed.

# Quantitative and Qualitative Methodology

There are two main approaches that are used to collect data in a research, qualitative and quantitative, some even combine the two available methodologies and do the research using a mixed mode methodology.

Quantitative research is where the result of the research is expressed in numbers and graphs and is used to confirm the assumptions that are made when starting a research. Quantitative research is conducted with a larger number of respondents as the research is analyzed and displayed in numerical figures. Here the questions are close ended as most of the time the respondents must select answers from a list of answers that are already provided.

1. Questionnaires.
2. Surveys.
3. Experiments.
4. Polls.

Qualitative on the other hand is a where the result of the research is expressed in words that is then used to understand the concepts, experiences. This type of research allows the researcher to get an in-depth understanding/insight of the topic. Qualitative research is conducted with a fewer number of respondents and the research is analyzed by summarizing and interpreting what was observed or interviewed. Here the questions are open ended as the views are experiences of people differ from each other.

1. One on One Interviews.
2. Observations.
3. Focused Discussions.
4. Content Analysis.

Are few of the methodologies that are mostly used in the qualitative methodology

In conclusion Qualitative methodology is used when you are in need of understanding something, and then analyzing the feedback to propose a solution, and Quantitate is used when you are in need of confirming an already existing theory and then displaying the results in a graphical or numerical manner.

# Appezite Research Methodology

The research methodology that will be used for Appezite will be qualitative research as, the main objective id Appezite is to provide order ahead applications for a business. To get an understanding on how important an order ahead application is to a business One on One interview will be conducted with businesses that recently purchased their own order ahead platform. Another reason for using Qualitative methodology is that to build the proposed solution it is required to get an insight of what is lacking in the already existing platforms from an entrepreneur perspective. One more reason for the use of interviews is that as the researcher I will be able to get the most on what the restaurateurs expect from an order ahead application.

Furthermore a questionnaire will be used to get the customer perspective on how important an order ahead application is to a restaurant, moreover existing researchers that was done by other companies will be taken into account to get a better understanding of how important an order ahead system is to the restaurant and the consumers. Furthermore having interviews with customer will help to get an understanding on what the customers expect from an order ahead application for a business.

# Research Approaches

When conducting a research, there are three aspects that will be used to start the research namely Top down, Bottom up, Middle out. Top down approach is where the final solution for a problem is already decided and the steps are traced backward to create the final process to achieve the successful product. Bottom up is where the problem is identified first and then a solution is created for the problem. Middle out is more of a crisscross approach where the starting point and the ending point is identified, and the gaps are filled in order to complete the research.

# Appezite Research Approach

The research approach that is used for appetizer is Middle Out as the problem is identified and the solution for the problem is already decided. This approach is used as this allows the solution to be created in a manner which meets the customer as well as the business requirements.

# Software Development Methodology