

# **GNG2101**

## **Deliverable B**

Submitted by

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# 1 Introduction

Deliverable B focuses on furthering our team's understanding of the proposed project. This project was done after the first client meeting. The problem statement, metrics, and benchmarking will be further explained. Our team has asked the client some critical questions that will enable us to broaden our understanding of the desired product. We summarized the client statements during the meeting and transformed them into problem statements and metrics. We have also included benchmarking, organized with assorted products. These specifications will help us test the product in the future, and to ensure we have achieved the desired results.

## 2 Client needs and wants

### 2.1 Client Need and Want statements

The following is a summary of the needs and wants to be identified during the first meeting with the client.

- The product needs to be comfortable for the user.
- Safety performance must be guaranteed.
- To be able to carry on in the luggage.
- Be high and wide enough.
- Be waterproof and have a drain system.
- The goal is to make shower easier.

### 2.2 Translated Client Need and Want Statements

According to the client statements collected, a formal list of needs and wants was created, ranked by importance.

Number	Need	Importance
1	The product is 21 inches high (53 centimeter).	1
2	The product has a soft backrest and cushioning.	2
3	The product holds 250 pounds (113 kilograms).	2

4	The product is light weight (under 5 lbs.).	1
5	The product can be folded.	2
6	The product has durable handle and feet.	2
7	The product is suitable and adjustable.	1
8	The product is waterproof and has a drainage system.	3
9	The product has no latex materials.	3

**Table 1: Needs and their importance**

The client's needs and wants statements are the answers get from the client, Darcy. With these needs, it becomes possible to create a successful product following his personal preference. The importance of these needs is determined by the relevant weight set according to the decreasing importance of safety, practicality, and aesthetics.

### 3 Problem Statement

Darcy conveys a need for a foldable and lightweight shower seat for travelling. This shower seat must be made for wet conditions and have durable feet, and it should be under 5 lbs. and 21 inches tall. A backrest would be a great option to add on.

### 4 Target Specification

Target specifications are used to express the demands of the customer in the form of characteristics. These characteristics may be assessed to ensure that the product succeeds and remains focused on the demands of the client.

	Metric Name and Number	Importance	Unit
5, 7	Collapsibility	1	Qualitative, scale of 1-5 (5 being best)
8	Waterproof	2	Binary (yes/no)
4, 6	Durability	1	Qualitative, scale of 1-5 (5 being best)
2, 9	Comfort	1	Qualitative, scale of 1-5 (5 being best)
3	Weight	1	Kilograms
1	Height	1	Centimeters

Table 2: Metrics, units, and explanation

The quantifiable specifications are used to quantify measurements that do not have a standard measurement using a relative scale. The measurements put in place will help the team achieve its goals and stay focused on its requirements and desires. The measures were rated based

on the necessity of ensuring that the customers' core demands are appropriately portrayed and addressed through established measurements.



## 5 Benchmarking

### 5.1 **Product 1:** PCP Foam Padded Bath Safety Seat with Hygienic Cutout

Description: This seat uses four metal adjustable legs to stand upright. These legs are adjusted using a spring peg and hole system. The legs are attached to the chair using hand screws like an X, making up a total of two continuous rods. The end of the rods is capped with plastic to avoid abrasion on the floor of the shower. The seat itself is made from molded plastic with a textured surface to prevent slipping. The final notable feature is the channel in the middle of the seat for cleanliness.



Figure 1: Image of PCP Foam Padded Bath Safety Seat with Hygienic Cutout, Price: CA \$60.49

### 5.2 **Product 2:** Lightweight Suspended Bath Seat

Description: This seat uses two metal beams with plastic non-slip tips on either side to suspend itself over the tub portion of a tub shower. The seat itself is molded plastic. It is secured to the bars using hand screws.



Figure 2: Image of Lightweight Suspended Bath Seat, Price: CA \$68.82

### 5.3 Product 3: Moen® Adjustable Safety Bathtub & Shower Seat

Description: This seat is like the first product; however, it is stripped down in features. The seat is made from plastic that is textured on the sitting surface. The plastic also has perforations to

allow water to pass through and avoid pooling. The seat's legs are remarkably like the first product in attachment to the seat and adjustment features.



**Figure 3: Visual representation of Product 3, Price: CA \$59.99**

## 6 Conclusions and Recommendations for Future Work

Our first client meeting provided us with valuable information about the client's needs and preferences. As a result of integrating the information, we were able to sum up the needs and requirements of clients and prioritize them. And then based on that, we transformed our need statement into a problem statement. It helps us clearly identify the problem and the work that should be done. Then there are metrics, which are used to express the characteristics of customer demands. We quantify measurements of our product so we can have a precise vision about what we should do and how we achieve our goal. We benchmark three products to determine our product's functionality, form, and usability. To deliver an excellent product and satisfy our client, our team should focus on ideation about how to meet the client's requirements. Also, having a sketch of our first prototype can help a lot.

## 7 Bibliography

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