COEN 285: Software Engineering (Fall 2014)

Project Documentation

for

Term Project

Happy with Lappy

Submitted by:

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# Objective

The objective of our project is to create the concept for a software product that increases happiness for autistic individuals.

# Background

Statistics suggest that autism is the fastest growing developmental disorder in the US. There are about 3 million individuals in the US who are affected by autism spectrum disorder (ASD) and the numbers are growing. There is no medical cure available for autism. As a result, many autistic children face severe difficulties with social interaction, verbal or non-verbal communication and controlling restrictive or repetitive behavior at young age. Most of them cannot lead an independent life when they grow up. This is why we decided to choose Autism as the topic for our project.

# Project Outline

Project execution involved following important phases

* Background study
* Requirements elicitation
* Requirement specification
* Modeling design artifacts
* UI design
* Project presentation
* Project documentation

‘ProjectTimeLine.pdf’ shows the approximate time-line for these tasks.



# Requirement Elicitation

A number of case-studies and research data available on the internet helped us understand the nature of problems associated with autism.

In order to gain deeper insight into the problems, we conducted ethnographic studies by:

1. Interviewing teachers who teach at autistic schools.
2. Visiting autism center

‘InterviewNotes.pdf’ provide the details of the study.



In addition to these qualitative methods, we also conducted online surveys to gather statistical data which is summarized in ‘StatisticData.pdf’.



# Requirement Specification

The analysis and specification of software product requirements are captured in the Software Requirement Specifications (SRS) document.

‘SRS\_Team5.pdf’ provides the detailed Software Requirements.



# Design artifacts

Based on the SRS document, we created design artifacts that describe the various functional modules of the system and their interaction with each other. Following design artifacts were created for this project:

* Operational view
* Interface block diagram
* System View
* N2 Matrix

These artifacts are included in ‘DesignArtifacts.pdf’



# UI Design

The SRS document is used as an input in order to come up with the UI screens mockups.

The details of each screen mockup is provided in ‘UIDesign.pdf’



# Key Lessons Learnt

* The primary research including visit to the center provided a lot of insight into the requirements.
* The personal interview enhanced our knowledge and understanding about ASD
* Study showed we cannot target a wide range of people suffering from ASD
* The online responses were restricted as people might not be very comfortable sharing
* As we were focusing on problems with kids we had to keep the product simple and with limited functionalities

To perform all the above activities, our team conducted several meeting, the details of which are provided in ‘MeetingLogs.pdf’

