CE301 INITIAL REPORT

GIFT-LIST ORGANISER WEBSITE FOR PARTIES

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Introduction

The Gift-List Project has been described as a website that allows users to create accounts and supervise an event. A list of desired presents could be provided for the guests to choose from or allowing them the choice.

With the worlds current environmental situation limitations could be enabled to ensure that a precise number of presents are purchased. This could be achieved through grouping of guests, providing an affordable solution on the amount of the present while eliminating the amount of plastic.

There are numerous occasions such as Birthday's, Weddings and many more that this could be implemented for. Payment should be accessible for everyone and could be executed so one guest takes reasonability.

When browsing the collection of projects there were numerous requirements that had to be satisfied. Web development has always been an interest when studying computer science and selecting this project will build upon essential programming languages and skills that are required in a workplace environment. As well as researching additional areas connected to this project.

The Objective of the project is to develop a practical website with a clean appearance. To gather research around Node.js and the benefits of keeping the programming language similar provides advantages among other approaches. As well as considering different payment options as there are an expanse available to use.

The purpose of this report is to provide an understanding of the proposed project and the projected timeline. At first all researched material will be provided to the reader with detailed explanations on how this will be implemented and beneficial to the project. Goals will be outlined to indicate the features that should be implemented in the final stage. Finally, the planning stage where the use of Jira will be explained and an outline of the time each section should take to complete.

Background Reading

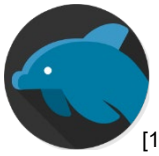
As described in the introduction there are numerous programming languages involved in developing a website. Research on web applications that implement databases was crucial in determining the method that would be used throughout this project. According to [1] there are various benefits of using Node.js over PHP and Python-Web. Performance is described as the major advantaged as it can process information and requests quickly. Scalability is an important feature with applications that include databases and Node.js is extremely scalable and will be used throughout the progression of the project. Since the integration of multiple programming languages can become compilated, Node.js uses JavaScript in front end and back end operations therefore creating all-in-one system that is simple to manage.


[12]

Node.js

Node.js is distinctive and performs unlike its competitors. [2] states that the most common approach to handling multiple connections is to use Multithreading and this is suitable for a low number of clients, whereas Node.js uses Event-driven programming which can scale if needed and is proficient in comparison.

There are numerous tutorials throughout the web that will assist in creating the server and building the connection to the database. This can be attained through the countless libraries that node has integrated.


[13]

MySQL

There are several databases to choose from. As the project is using Node.js it is important to use a database that can be used in the environment and is simple to implement. Personally, having experience in the language will benefit the project.

When researching e-commerce came up and is very much connected to the project. [3] Describes the different methods that could be used when creating databases. This is useful as it should eliminate issues involving relationships between the tables and the latency.

Security is essential when developing websites that include database and sensitive information. Therefore, it is important that the correct measures are taken and will be available in the paper [4].


[14]

JavaScript

As the main programming language used in Node.js and throughout the web. In an attempt to understand all the different features of JavaScript [5] has lots of information and will be useful in the creation of certain pages.


[15]

HTML / Hypertext Markup Language

Since the establishment of the programming language there has been multiple alterations. Validation on the internet is monitored to ensure that basic errors don't occur and can also improve the speed and accessibility.

There are two papers that include information that relate to the project. One provides a step-by-step guide on setting up a basic page that connects through the Node.js frameworks [6]. [7] Delivers the theory behind it all.


[16]

CSS / Cascading Style Sheets

Appearance is important to provide the user with a pleasant first impression and should also function correctly. Style sheets allow the transformation of basic webpages into a clean and modern design.

Instead of overloading the server with requests to multiple Style sheets, according to [8] there are tools that look through the code to remove any duplicated code. This achieves cleaner code and less space being used.

 [17]

PayPal

Creating an Electronic Payment system is both beneficial to yourself and the customer. According to [9] there are numerous types to use and provides guidance on how to begin programming a system.

Fundamentally the project is a prototype and would be unrealistic to achieve this, so it is less complicated to use a payment type that already has credibility and is simple to set up.

There is a huge percentage of people that already have an account with PayPal and would be a matter of linking it with the Keep Track account.

 [18]

HCI / Human Computer Interaction

Web development encompasses more than producing respectable code. Disabilities can be accommodated through certain methods such as choosing a range of colours that allow colour blind users to see. Blind individuals have software that provides a voice over on features such as the navigation and forms.

As explained in [10] it is important to keep the information on the page to a manageable level suggesting that the user will extract more from the page.

Websites need to be available on a range of devices while maintaining the same appearance therefore parameters will be included to support this.

Project Goals

Since the project focuses on the integration of Node.js, a program that utilises this would be required. The text editor that will be used is called Atom.io and provides support for Node to run in the background while working on the front end of the website simultaneously.

The aspiration is to develop a multi-purpose website that provides individuals the choice to create an account and instigate an event, Invitations are then emailed to the guests where a link is provided allowing them to register as a user and accept the event. Profile pages will be available to add personal information such as their date of birth and desired presents. Communication will be implemented allowing users to contact members or entire groups. Payment will be enabled using PayPal as this will eliminate complications with distribution of the price.

A name has been chosen for the product which is Keep Track. There is a domain name that has been purchased and is intended to be used in the final version of the software when presenting at the end of the year.

Ensuring that all tasks are assigned in Jira and show the progress as work is completed. Code will also be placed in the GitLab repository including documentation.

Key Objectives

- Implement Node.js
- Build a user system
- Enable communication
- Provide grouping
- Link PayPal with accounts

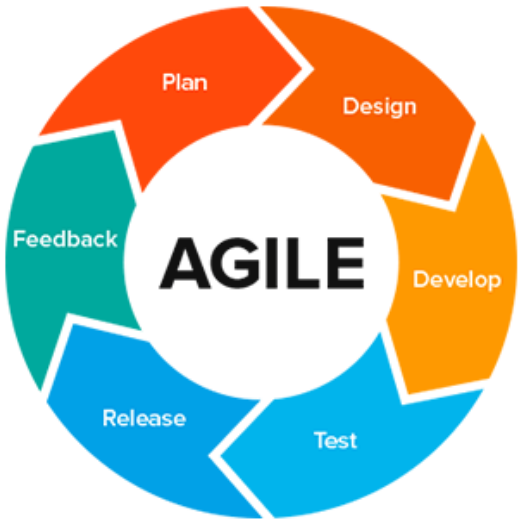
Skills

- Learn Node.js
- Build upon JavaScript
- Develop HTML & CSS Knowledge
- Using Jira

These are the goals that have been set and should be achieved by the end of the project.

Project Planning

According to [11] studies illustrate that the Agile Methodology can improve productivity throughout the time lime of the project while also maintaining quality. Below is an example of the of the procedure that demonstrates the stages.



[19]

Jira is an Agile piece of software that offers several features in order to track and progress the project. All major events will be given an agenda and additional tasks and stories will be added to these events as the project goes on.

Below are a set of Deliverables that have been chosen to be completed before the Oral examination.

Deliverables

- Main page that includes navigation
- Begin on the Node.js integration
- Registration page
- Sign in page
- User area
- Event page
- Improve the overall design

It is believed that this is achievable in the time frame and will allow a demonstration to be provided if needed.

Tasks

Title	Start Date
Initial Report	01/10/2018
Final Report	19/10/2018
Develop Main Page	19/10/2018
Add Navigation	24/10/2018
Node.js Integration	26/10/2018
Registration Page	01/11/2018
Sign in Page	06/11/2018
User Area	09/11/2018
Testing Features	14/11/2018
Enhancements	21/11/2018
Prepare for Oral Interview	28/11/2018
Oral Interview (Rough Date)	05/11/2018
Communication System	06/11/2018
Grouping Method	13/11/2018
Payment Scheme Implemented	18/11/2018
Testing and Amendments	20/11/2018

This table contains all the main elements that assemble the project, this is an approximate guide to be inserted into the Jira software as that is where all of the planning will take place.

All tasks will be placed on the Kanban board where separate tasks will be included that need to be performed to bring it all together. Stories will be designed to gather a perspective of the user and assist in testing the features.

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[15] https://cdn-images-1.medium.com/max/2000/1*l4xICbIIYlz1OTymWCoUTw.jpeg

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[17] https://cdn0.iconfinder.com/data/icons/free-social-media-set/24/paypal-512.png

[18] https://cdn3.iconfinder.com/data/icons/luchesa-vol-9/128/Adaptive_design-512.png

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