

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
НАЦІОНАЛЬНИЙ ТЕХНІЧНИЙ УНІВЕРСИТЕТ УКРАЇНИ
“КИЇВСЬКИЙ ПОЛІТЕХНІЧНИЙ ІНСТИТУТ”
ІПСА
Кафедра Системного проектування

Лабораторна робота 2

з дисципліни: «ПРОЕКТУВАННЯ ІНФОРМАЦІЙНИХ СИСТЕМ»

Скласти опис передпроектної документації (Software Requirement Specifications).

Виконав:

студент групи ДА-71

Михайловин Р. Г.

Automatic pet feeder

Revision History

Date	Description	Author	Comments
20.11.2020	Version 0.1	Mikhaylovin	Create template
25.11.2020	Version 1.0	Mikhaylovin	Ready

Document Approval

The following Software Requirements Specification has been accepted and approved by the following:

Signature	Printed Name	Title	Date
	Mikhaylovin		20.11.2020

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1. Introduction

1.1 Purpose

The purpose of this document is to present a detailed description of the Automatic pet feeder mobile application. It will explain the purpose, features of this system, and user interface, what the system will do, constraints under which it must operate and how system will react. This document is intended for both stakeholders and developers.

1.2 Scope

This system is intend to be a mobile app for everybody who wants to feed their pets with automatic feeder. The software products name is “Automatic pet feeder”.

Whole system is a mobile app which is connected to database.

1.3 Glossary

Term	Definition
<i>App</i>	<i>“Automatic pet feeder” aplication</i>
<i>Database</i>	<i>Collection of all the information which is stored in system.</i>
<i>User</i>	<i>person, who was logged into the system.</i>
<i>Item</i>	<i>This is collection of(pet's characteristics, feed time) which user want to store in database</i>
<i>Software Requirements Specification</i>	<i>A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document.</i>

1.4 References

IEEE. *IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications*. IEEE Computer Society, 1998.

“Методичні вказівки до виконання лабораторних робіт для студентів напряму підготовки 6.050101 «Комп'ютерні науки», спеціальностей 8.05010102 «Інформаційні технології

Automatic pet feeder

проектування» та 8.05010103 «Системне проектування» денної та заочної форм навчання», Dph Konstantin Kharchenko.

1.5 Overview

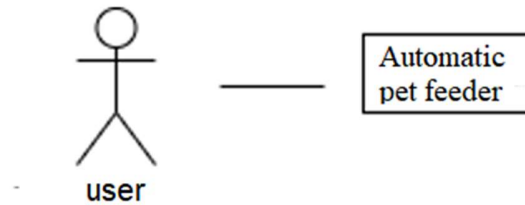
The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter.

The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product.

Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

2. Overall Description

2.1 Product Perspective



The Automatic pet feeder has only one type of user – user. He communicates with mobile app and changes information which is stored in system. All he needs - are phone, automatic pet feeder with Bluetooth(optional).

2.2 Product Functions

Product function is to provide a system for creating, changing, deleting item, analyzing data about pet feeding.

2.3 User Characteristics

Person, who knows how to use mobile apps and perform basic operations.

2.4 General Constraints

Mobile app will be written in Python it is programming language

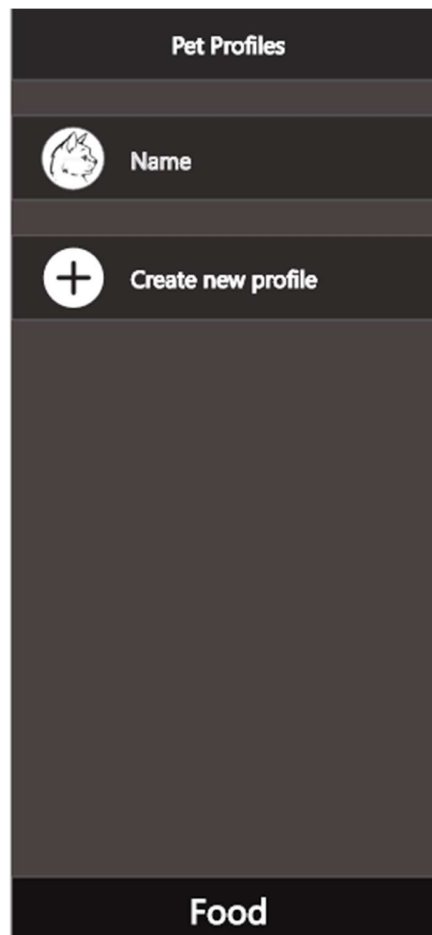
There aren't any restrictions in target product platform. All the user needs – are mobile phone.

3. Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

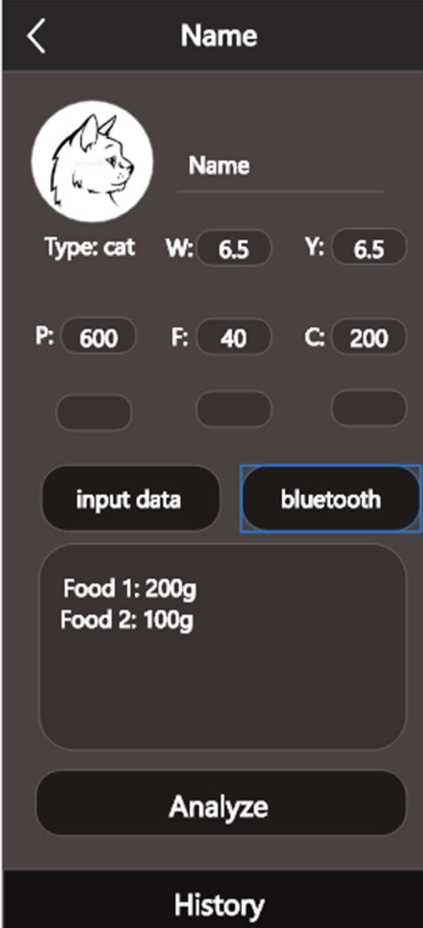
Pet profile list page



Here user is able to enter the pet profile.
Also here is presented creating new profile option.


Automatic pet feeder

Pet profile



A mobile application form for creating a pet profile. The form has a dark theme. At the top, there is a back arrow and the title 'Name'. Below this is a circular profile picture placeholder with a cat icon. To the right of the picture is a text input field labeled 'Name'. Below the picture, there are three rows of input fields: 'Type: cat', 'W: 6.5', 'Y: 6.5', 'P: 600', 'F: 40', and 'C: 200'. Below these are three empty input fields. At the bottom of the form, there are two buttons: 'input data' and 'bluetooth'. The 'bluetooth' button is highlighted with a blue border. Below the buttons is a text area containing 'Food 1: 200g' and 'Food 2: 100g'. At the very bottom, there is a large 'Analyze' button and a 'History' button.

< Name

 Name

Type: cat W: 6.5 Y: 6.5

P: 600 F: 40 C: 200

input data bluetooth

Food 1: 200g
Food 2: 100g

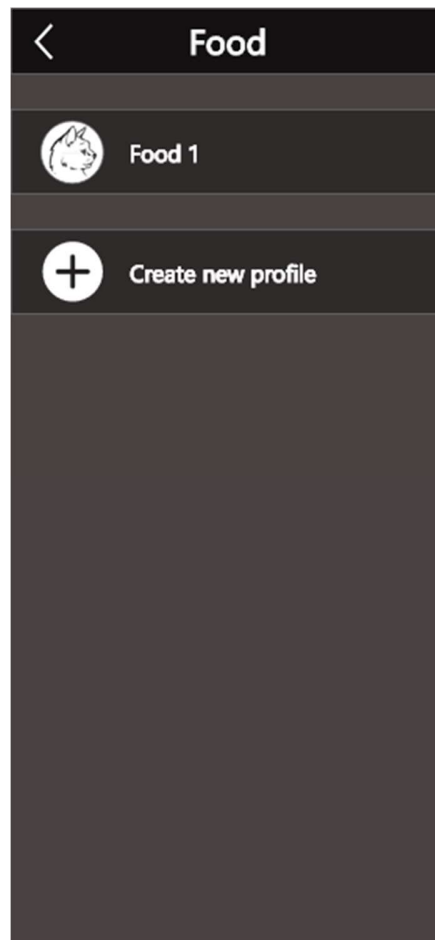
Analyze

History

Here user is able to input data, edit and perform analyze it.

Food list page

Automatic pet feeder



Here user is able to enter the food profile.
Also here is presented creating new profile option.

History page

Automatic pet feeder




Here user is able to check and edit history: edit, delete, clear.

Food profile

Automatic pet feeder

< Food 1

 Food 1

P: 600 g F: 40 g C: 200 g

W: 6.5 kg left: 6.5 kg

Types: cat, dog

Here user is able to check and edit food profile

Edit pet profile

Automatic pet feeder



The image shows a mobile app interface for editing a pet profile. The title bar at the top is dark grey with a back arrow on the left, the text 'Edit profile' in the center, and a dropdown arrow on the right. Below the title bar, there is a circular profile picture placeholder with a white plus sign. To the right of the profile picture is a text input field labeled 'Enter pet name'. Below the profile picture, there are three labels: 'Type:', 'W:', and 'Y:', each followed by a rounded rectangular input field. Below these, there are three labels: 'P:', 'F:', and 'C:', each followed by a rounded rectangular input field. Below these, there is a label 'Type:' followed by two radio buttons, one labeled 'cat' and one labeled 'dog'. Below the radio buttons, there is a label 'Own variant :' followed by a rounded rectangular input field.

< Edit profile >

 Enter pet name

Type: W: Y:

P: F: C:

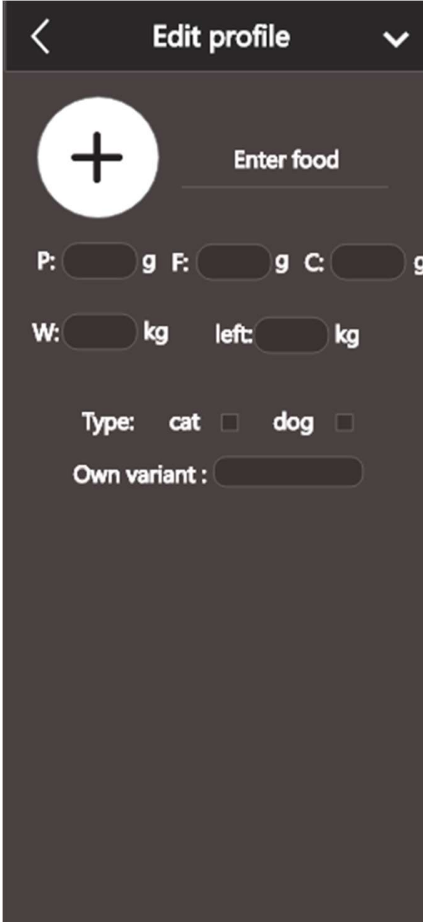
Type: cat dog

Own variant :

Here user is able to edit pet profile.

Edit food profile

Automatic pet feeder



The image shows a mobile application screen titled "Edit profile". At the top left is a back arrow, and at the top right is a dropdown arrow. Below the title is a circular profile picture placeholder with a plus sign. To the right of the profile picture is a text input field labeled "Enter food". Below this are three input fields for "P:", "F:", and "C:", each followed by a "g" unit. Below these are two input fields for "W:" and "left:", each followed by a "kg" unit. Below the weight fields is a "Type:" label with two radio button options: "cat" and "dog". At the bottom is a label "Own variant :" followed by a text input field.

< Edit profile >

+ Enter food

P: g F: g C: g

W: kg left: kg

Type: cat ☐ dog ☐

Own variant :

Here user is able to edit food profile.

3.2 Functional Requirements

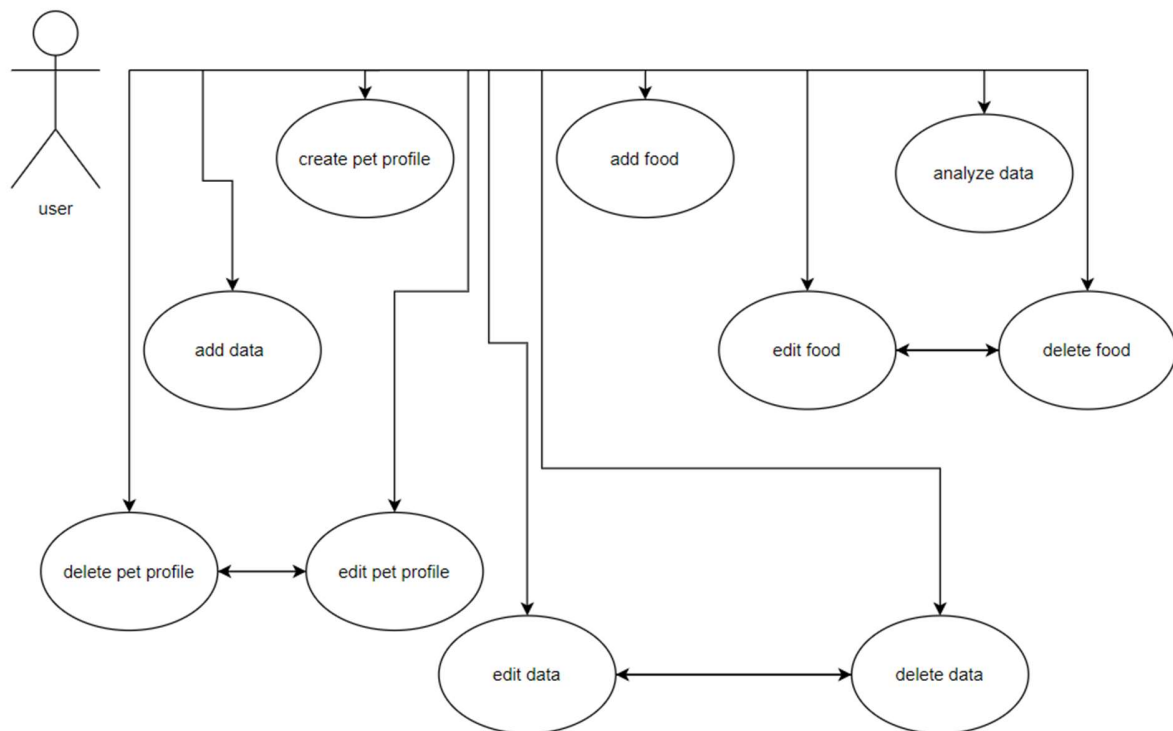
Edit item: form with pre-filled data.

Delete item: button.

Create item: form with fields.

Read item: show data.

3.3 Use Case



3.4 Non-Functional Requirements

3.3.1 Performance

System performance depends on the amount of entered data.

Automatic pet feeder

3.4.2 Availability

This app is available for everyone.

3.4.3 Security

All your information is available only on your phone.

3.4.4 Maintainability

System will have regular updates that fix bugs and performance improvements. Besides that could be added new features.

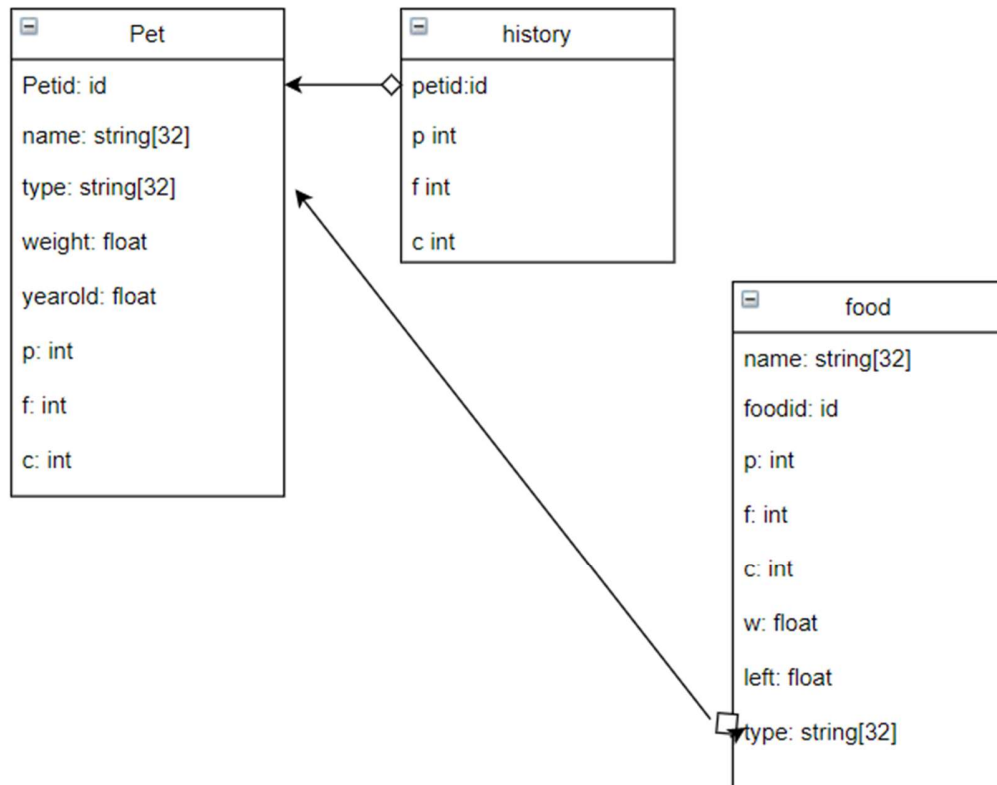
3.4.5 Portability

System targets wide range of devices:

- Android;
- IOS;

3.5 Logical Database Requirements Logical structure of data to be stored in the Database is given below.

Automatic pet feeder



4. Tests

4.1 Test 1

- Open mobile app
- List of pet profiles should appear

4.1.1 Scenario 1

- Chose pet profile
- Pet profile should be opened

4.1.2 Scenario 2

- Chose “create new pet profile
- New pet profile page should be created and opened

4.2 Test 2

- Click “Food”

4.2.1 Scenario 1

- Food list should be opened

4.3 Test 3

- Open «Pet profile» page

4.3.1 Scenario 1

- Click “add data” button
- Should appear form with fields: food, amount

4.3.2 Scenario 2

- Click “edit”
- Should appear points available for edition

4.3.2 Scenario 3

- Click “analyze”
- Should calculate the right amount of feed the next day

4.4 Test 4

- Open “Food” page

Automatic pet feeder

4.4.1 Scenario 1

- Click “edit” button
- Should appear form with fields: proteins, fats, carbohydrates