

# 0. Cover Page

## BLG411E - Software Engineering Requirements Specification

**Project Name: The Internet Headphone Database (IHDB)**

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# 1. Introduction

## Goal

The Internet Headphone Database (IHDB) is a solution for users to select a suitable headphone for themselves in terms of cost, sound quality, sound type, etc. As technology develops many headphones with various features and capabilities are on the market, but as customers we have pretty much no knowledge about what to seek when we search for a headphone. That's why IHDB offers to guide those who need help while searching for a headphone with bringing the necessary features of headphones forth. With our experienced team we offer brief but efficient reviews about headphones to help people understand if a headphone is suitable for them. Moreover, since headphones have technical features, some may find it difficult to understand the terms, it is offered to have brief explanations of the terms to help people get into the world of headphones. Our goal is to enlighten people about headphones and provide them a safe and informing journey through the world of headphones.

## Contents

This document consists of three sections: Introduction, System Requirements and Use Cases. Introduction gives a brief description of what the goal of the project is. System Requirements section lists the functional and non-functional requirements of the project. Use Cases section define the type of users that will utilise the software, list the possible scenarios for the actions provided by the software, provides use case diagrams and use cases for each requirement specified in the project plan.

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## 2. System Requirements

### Functional Requirements

1. All types of users should be able to navigate through page in order to login, logout successfully.
2. Visitors should be able to register to the system to gain Registered User capabilities.
3. Visitors should be able to list headphones or news without logging in.
4. Visitors should be able to view headphones.
5. As visitors register to system they should acquire new capabilities like creating a profile and using Find For Me page to find the suitable headphone depending on their headphone preferences that are given in their profile.
6. Registered users should be able to do what visitors are capable of.
7. Audiophile masters should have all the capabilities of visitors and registered users.
8. Audiophile masters should be able to add new headphones or edit the existing headphones in the Administration Page, but they should not be allowed to delete the headphones.
9. Audiophile masters should be able to add news or edit the existing news in the Administration Page, but they should not be allowed to delete the news.
10. If an audiophile master wants to delete a headphone or news, they need to create a ticket in the Administration Page.
11. Creators should be able to assign Audiophile Masters depending on their choices in the Administration Page.
12. Creators should be able to delete headphones from the system on their choices in the Administration Page.
13. Creator should be able to delete news from the system on their choices in the Administration Page.
14. Creators should be able to delete Audiophile Masters from the system on their choices in the Administration Page.
15. Creators should be able to list users in the Administration Page.
16. Creators should be able to do what Audiophile Masters, Registered Users and Visitors are able to do.

### Non-Functional Requirements

1. The project shall be a web application and it should be accessible by the users without the need to download an external software to their computers.
2. The project shall be accessible accross multiple operating systems.
3. Every event should be logged and these log files should be only visible to creators.
4. The users shall be able to operate on the website easily without going through a tutorial or documentation.
5. The project should follow user interface guides in terms of consistent color schemes and fonts.
6. The system should respond within 5 seconds.
7. The system should be accessible at all times, excluding unforeseen circumstances.
8. The system should be resistant to external threats to protect user information.
9. The system should be scalable to be able to deal with increasing number of users and headphones in the database.

## 3. Use Cases

### 3.1 User Types

User types : Visitor, Registered User, Audiophile Master, Creator

User Types	User Scenarios
Visitor	List Headphones, Read News, View Headphones, Register
Registered User	List Headphones, Read News, View Headphones, Login, Logout, Edit Profile, Find For Me
Audiophile Master	List Headphones, Read News, View Headphones, Login, Logout, Edit Profile, Find For Me, Add Headphone, Edit Headphone, Contact Creator, Add News, Edit News
Creator	List headphones, Read News, View Headphones, Login, Logout, Edit Profile, Find For Me, Add Headphone, Edit Headphone, Contact Creator, Add News, Edit News, Delete Headphone, Add Audiophile Master, Delete Audiophile Master, Delete News, List Users

### 3.2 User Stories

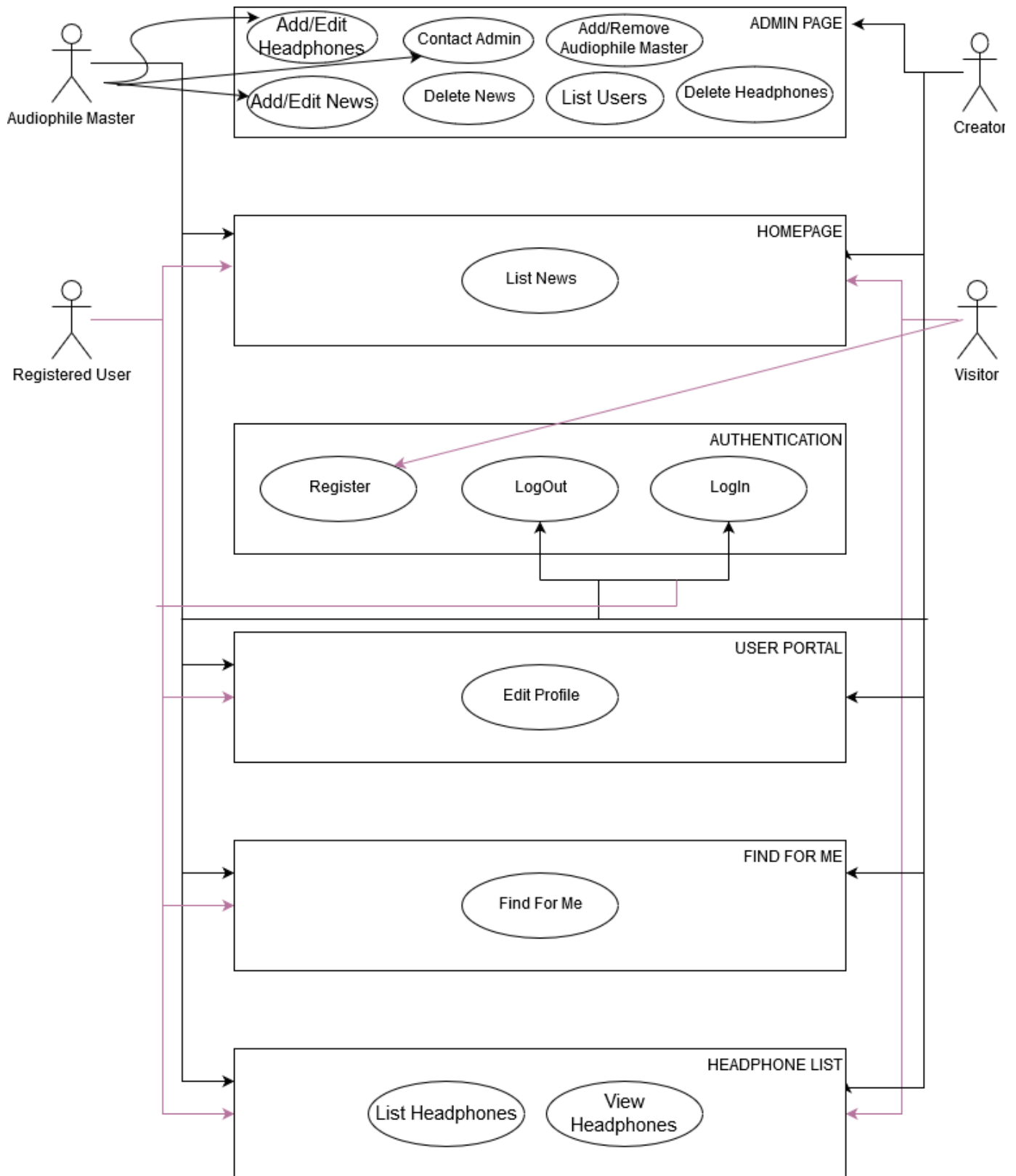
Ege is a creator. Ege wants to have access to the administration of the website. Firstly, he logs in as creator with his specified username and password. Then he navigates to Admin Page to be able to control the system. There he wants to add a new headphone to the database. He navigates to add headphone part of the page and fills in the required data inputs and submits. The headphone is added to system after a confirmation box. Unfortunately he did something wrong while adding the data. Now he navigates to the editing phase and there he finds the headphone he added. He clicks on it to retrieve the data of it. When data is ready he edits the wrong data field and submits. He confirms the upcoming confirmation box and the headphone data is updated. After a while an Audiophile master called Phil sends him a ticket that this headphone should be deleted due to some issues. Ege reaches this ticket at the administration page and sees this ticket and conducts that he should delete that headphone. He navigates to deletion section, finds the particular headphone and presses delete. A confirmation box appeared to ensure that he wants to delete this headphone. After confirmation this headphone is deleted. Another day Ege finds out that the last added news had fake information in that. Ege presses delete button on it and after confirmation he deletes the news. Later he wants to find out that who was spreading fake news so he checked the data of it to punish this Master because of his fake news. So he deletes this admin from administration page after a confirmation box. After a while this banned Audiophile Master contacts Ege from his e-mail to say that he was sorry and would like to retrieve his position back. Ege forgives this Master and navigates to admin page and promotes this user back to an Audiophile Master.

Carl, a registered user, desires to find a headphone for himself. First, he goes to homepage and clicks login button, he logs in as a registered user with his username and password, and navigates to the Find For Me page. Website returns an error message indicating that he must edit his profile before Find For Me Page. He edits his profile and navigates to Find For Me page again. Carl states the specifications of the headphone that he wants to the application. Website lists all the headphones that fit to Carl's wishes. Carl finds a headphone that its score is higher than 65 and also meets his requests. Finally he clicks to logout button, logs out successfully and website redirects him to the homepage.

Phil, the audiophile master, sees an announcement about a new headphone and wants to share the news on the website. First, he logs into the website using his credentials. He is recognized as an audiophile master by the system; therefore, he is allowed to see the Add News button. After clicking the button, Phil is directed to a page where he can enter the title and content of the news. After filling out the forms with the necessary information, Phil clicks the Submit button and confirms that he wants to share the news. Thus, the visitors are made aware of this new awesome headphone thanks to Phil. After the excitement period passes off, he realizes that he made some typos in the article. He clicks the Edit News button provided in the news list to access the Admin Page where he is able to make changes on the news. He fixes the typos and clicks the Submit button. After confirmation, the news page reflects the changes made on the article. He also adds the headphone to the database. Later on, while browsing the website, Phil notices that he is not the only one excited about the new headphone. Another Audiophile master has added the new headphone before him. He doesn't have authority to delete headphones. Therefore, he visits the Admin Page, clicks the Contact Creator button and provides an explanation to let the Creators know that there is a duplicate entry in the database. Thereby, a ticket is opened and Creators are made aware of the problem.

Tark, the visitor, opens the website, lists the headphones on the headphone list page, views a headphone that he likes and reads the audiophile master's comments about it. Then Tark returns to the homepage and while he was reading news, he sees the register button. Tark clicks the register button and goes to the register page, then fills the required information and becomes a registered user.

### 3.3 Use Case Diagram



### 3.4 Use Cases

Add Headphone	Delete Headphone	Edit Headphone	View Headphone	Add News	Delete News	Edit News
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Add Audiophile Master	Delete Audiophile Master	Register	Login	Logout	List Headphones (Admin Page)	List Headphones
List News(Admin Page)	List News	List Users	Edit Profile	Find For Me	Contact Creator	Contact Creator (Creator)

#### 3.4.1 Add Headphone

Primary Actor	Audiophile Master, Creator
Brief	Primary actors of this case can add a headphone including headphones all major data and a review.
Basic Flow	<ol style="list-style-type: none"> <li>1. At headphone adding page input boxes are provided from system.</li> <li>2. Actors fill in the required boxes</li> <li>3. Submit button is clicked</li> <li>4. Warning box appears which has confirm and cancel buttons.</li> <li>5. Confirm button is clicked.</li> <li>6. Headphone is added to the database</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. After submit button is clicked, system finds the same headphone in the database.</li> <li>2. Response is returned to actors saying that "This headphone exists."</li> </ol>

#### 3.4.2 Delete Headphone

Primary Actor	Creator
Brief	Primary actors of this case can delete an existing headphone's all major data and review.
Basic Flow	<ol style="list-style-type: none"> <li>1. At headphone list page selection boxes and delete button are provided from system for actors.</li> <li>2. Actors select desired boxes.</li> <li>3. Delete button is clicked.</li> <li>4. Warning box appears which has confirm and cancel buttons.</li> <li>5. Confirm button is clicked.</li> <li>6. Selected headphones are deleted from the database.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. After warning box appears, actor can click the Cancel button.</li> <li>2. Deletion terminated by actor.</li> </ol>

#### 3.4.3 Edit Headphone

Primary Actor	Audiophile Master, Creator
Brief	Primary actors of this case can edit a headphones data.
Basic Flow	<ol style="list-style-type: none"> <li>1. At headphone list page edit buttons are provided from system for actors.</li> <li>2. Edit button is clicked.</li> <li>3. Input box appears with previous data.</li> <li>4. Actors edit the necessary data.</li> <li>5. Submit button is clicked.</li> <li>6. Warning box appears which has confirm and cancel buttons.</li> <li>7. Confirm button is clicked.</li> <li>8. New data is updated in the database.</li> </ol>

Alternative Flow	<ol style="list-style-type: none"> <li>1. After warning box appears, actor can click the Cancel button.</li> <li>2. Editing is terminated by actor.</li> </ol>
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#### 3.4.4 View Headphone

Primary Actor	Audiophile Master, Creator, Registered User, Visitor
Brief	Primary actors of this case can view a headphone page.
Basic Flow	<ol style="list-style-type: none"> <li>1. At headphone list page a headphone is clicked</li> <li>2. The headphone page loads.</li> <li>3. Primary actors can see the page of the selected headphone.</li> </ol>
Alternative Flow	None

#### 3.4.5 Add News

Primary Actor	Audiophile Master, Creator
Brief	Primary actors of this case can add news to the news page.
Basic Flow	<ol style="list-style-type: none"> <li>1. At new adding page inputs boxes are provided from system.</li> <li>2. Actor writes the article about the headphone with attachments like images if it is wanted (thumbnail or descriptive photos).</li> <li>3. Submit button is clicked.</li> <li>4. Warning box appears which has confirm and cancel buttons.</li> <li>5. Confirm button is clicked.</li> <li>6. New news is added to database.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. After warning box appears, actor can click the Cancel button.</li> <li>2. Adding is terminated by actor.</li> </ol>

#### 3.4.6 Delete News

Primary Actor	Creator
Brief	Primary actors of this case can delete a news from the news page.
Basic Flow	<ol style="list-style-type: none"> <li>1. At news page selection boxes and delete button are provided from system for actors.</li> <li>2. Actors select desired boxes.</li> <li>3. Delete button is clicked.</li> <li>4. Warning box appears which has confirm and cancel buttons.</li> <li>5. Confirm button is clicked.</li> <li>6. Selected news are deleted from the database.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. After warning box appears, actor can click the Cancel button.</li> <li>2. Deletion terminated by actor.</li> </ol>

#### 3.4.7 Edit News

Primary Actor	Audiophile Master, Creator
Brief	Primary actors of this case can edit news to the news page.



Basic Flow	<ol style="list-style-type: none"> <li>1. At news list page edit buttons are provided from system for actors.</li> <li>2. Edit button is clicked.</li> <li>3. Actor edits the article about the headphone with attachments like images if it is wanted (thumbnail or descriptive photos).</li> <li>4. Submit button is clicked.</li> <li>5. Warning box appears which has confirm and cancel buttons.</li> <li>6. Confirm button is clicked.</li> <li>7. New news is added to database.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. After warning box appears, actor can click the Cancel button.</li> <li>2. Editing is terminated by actor.</li> </ol>

#### 3.4.8 Add Audiophile Master

Primary Actor	Creator
Brief	Primary actors of this case can add audiophile master to system.
Basic Flow	<ol style="list-style-type: none"> <li>1. At member profile page, 'Set As Audiophile Master' button is provided from system.</li> <li>2. Actors click that button.</li> <li>3. Warning box appears which has confirm and cancel buttons.</li> <li>4. Confirm button is clicked.</li> <li>5. Member becomes Audiophile Master.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. After warning box appears, actor can click the Cancel button.</li> <li>2. Adding terminated by actor.</li> </ol>

#### 3.4.9 Delete Audiophile Master

Primary Actor	Creator
Brief	Primary actors of this case can delete audiophile master from system.
Basic Flow	<ol style="list-style-type: none"> <li>1. At member profile page, 'Revoke Audiophile Master' button is provided from system.</li> <li>2. Actors click that button.</li> <li>3. Warning box appears which has confirm and cancel buttons.</li> <li>4. Confirm button is clicked.</li> <li>5. Member's authority deleted.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. After warning box appears, actor can click the Cancel button.</li> <li>2. Deletion terminated by actor.</li> </ol>

#### 3.4.10 Register

Primary Actor	Visitor
Brief	Primary actors of this case can create a new account for system.

Basic Flow	<ol style="list-style-type: none"> <li>1. At register page input boxes and register button are provided from system.</li> <li>2. Actors fill the necessary inputs.</li> <li>3. Register button is clicked.</li> <li>4. System checks the validity of inputs.</li> <li>5. Account created.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. In system validity check, if inputs are not valid registration will be fail.</li> <li>2. System will give which fields are not valid.</li> </ol>

#### 3.4.11 Login

Primary Actor	Registered User, Audiophile Master, Creator
Brief	Primary actors of this case can login their system accounts.
Basic Flow	<ol style="list-style-type: none"> <li>1. At login page input boxes and login button are provided from system.</li> <li>2. Actors fill the necessary inputs.</li> <li>3. Login button is clicked.</li> <li>4. System checks the validity of inputs.</li> <li>5. User redirected to main page with logged in.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. In system validity check, if inputs are not valid login will fail.</li> </ol>

#### 3.4.12 Logout

Primary Actor	Registered User, Audiophile Master, Creator
Brief	Primary actors of this case can logout their system accounts.
Basic Flow	<ol style="list-style-type: none"> <li>1. At any page logout button is provided from system.</li> <li>2. Logout button is clicked.</li> <li>3. User redirected to main page with logged out.</li> </ol>
Alternative Flow	None

#### 3.4.13 List Headphones(Admin Page)

Primary Actor	Audiophile Master, Creator
Brief	Primary actors of this case can list headphones with additional abilities.
Basic Flow	<ol style="list-style-type: none"> <li>1. 'List Headphones' is provided from system in admin page.</li> <li>2. Button is clicked.</li> <li>3. Headphones are listed with edit and delete options (options are only for creators).</li> </ol>
Alternative Flow	None

#### 3.4.14 List Headphones

Primary Actor	Visitor, Registered User, Audiophile Master, Creator
Brief	Primary actors of this case can list headphones.

Basic Flow	<ol style="list-style-type: none"> <li>1. 'List Headphones' is provided from system in main page.</li> <li>2. Button is clicked.</li> <li>3. Headphones are listed.</li> </ol>
Alternative Flow	None

#### 3.4.15 List News(Admin Page)

Primary Actor	Audiophile Master, Creator
Brief	Primary actors of this case can list news with additional abilities.
Basic Flow	<ol style="list-style-type: none"> <li>1. 'List News' button is provided from system in admin page.</li> <li>2. Button is clicked.</li> <li>3. News are listed with edit and delete options (options are only for creators).</li> </ol>
Alternative Flow	None

#### 3.4.16 List News

Primary Actor	Visitor, Registered User, Audiophile Master, Creator
Brief	Primary actors of this case can list news.
Basic Flow	<ol style="list-style-type: none"> <li>1. 'Main Page' button is provided from system in navigation bar.</li> <li>2. Button is clicked.</li> <li>3. System redirects user to the main page.</li> <li>4. List News function is called by system.</li> <li>5. News are listed on main page.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. Actor opens the main page of system in any way possible.</li> <li>2. List News function is called by system.</li> <li>3. News are listed on main page.</li> </ol>

#### 3.4.17 List Users

Primary Actor	Audiophile Master, Creator
Brief	Primary actors of this case can list users with additional abilities.
Basic Flow	<ol style="list-style-type: none"> <li>1. 'List Users' is provided from system in admin page.</li> <li>2. Button is clicked.</li> <li>3. Users are listed.</li> </ol>
Alternative Flow	None

#### 3.4.18 Edit Profile

Primary Actor	Registered User, Audiophile Master, Creator
Brief	Primary actors of this case can change their information.

Basic Flow	<ol style="list-style-type: none"> <li>1. 'Edit Profile' button is provided from system in profile page.</li> <li>2. Button is clicked.</li> <li>3. Input boxes that related with user's information provided from system.</li> <li>4. User fills the boxes with necessary information.</li> <li>5. Confirm button is clicked.</li> <li>6. If current password matches with database edit successful.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. If current password does not match with database edit terminated.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. If input box is empty information will still same.</li> </ol>

#### 3.4.19 Find For Me

Primary Actor	Registered User, Audiophile Master, Creator
Brief	Primary actors of this case can find headphone related with their desires.
Basic Flow	<ol style="list-style-type: none"> <li>1. 'Find For Me' button is provided from system in headphone list.</li> <li>2. Button is clicked.</li> <li>3. System checks if desires are specified or not.</li> <li>4. If desires are specified, proper headphones will be listed.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. If desires are not specified find for me function will be terminated.</li> <li>2. Information text will appear.</li> </ol>

#### 3.4.20 Contact Creator

Primary Actor	Audiophile Master
Brief	Primary actors of this case can contact with creators.
Basic Flow	<ol style="list-style-type: none"> <li>1. 'Contact Creator' button is provided from system in admin page.</li> <li>2. Button is clicked.</li> <li>3. Contact page opens.</li> <li>4. Actors send a ticket according their need.</li> </ol>
Alternative Flow	<ol style="list-style-type: none"> <li>1. 'Older Tickets' button is provided from system in contact page.</li> <li>2. Button is clicked.</li> <li>3. Actors can see their older tickets on there.</li> </ol>

#### 3.4.21 Contact Creator(Creator)

Primary Actor	Creator
Brief	Primary actors of this case can list and reply tickets.

Basic Flow	<ol style="list-style-type: none"><li>1. 'Contact Creator' button is provided from system in admin page.</li><li>2. Button is clicked.</li><li>3. Contact page opens.</li><li>4. Open tickets are listed.</li><li>5. Actors select a ticket.</li><li>6. Actors can read, reply or close ticket.</li></ol>
Alternative Flow	<ol style="list-style-type: none"><li>1. 'Older Tickets' button is provided from system in contact page.</li><li>2. Button is clicked.</li><li>3. Actors can see older tickets on there.</li></ol>