

Personality testing and admission support system Software Requirement Specification

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1. Introduction

1.1. Purpose

This document represents the Software Requirements Specification (SRS) for the logic sub-component of the BrainTech. It is designed and written for the stakeholders, such as the psychologists, admission staff, and developers involved in the project. Its purpose is to describe the scope, functional and non-functional software requirements, and the design constraints of the whole logic sub-component. Furthermore, this document shows how the system's interfaces are designed in detail.

1.2. Scope

This software system is a personality test and admission support system, helping students easily access and understand their personalities and know which universities are suitable for their personality. This system is designed to take full advantage of the Myers—Briggs Type Indicator (MBTI) personality testing method to improve and provide the most accurate personality tests. By maximizing the work of psychologists and admissions staff, the system will meet the demons of students while remaining easy to understand and use.

More specifically, based on the personality of the student who participated in the test, the system will make suggestions about the universities that are most suitable for the student. The system will create conditions for students to apply to the suggested majors of thousands of different universities. We have a use-case model that states the correlation relationship between the user and the system, from which we develop a relational database containing the list of Personality Tests, Psychologists, Admissions staff, and types of personality tests.

1.3. Definitions, Acronyms, and Abbreviations

| Acronym | Definition | Vietnamese |
|--------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Guest | A person is a newbie who has never used the website before or is a user without logging in. | Khách mời |
| Authenticated User | A person who has previously registered and authorized the site and use some of function that website offers. | Người dùng đã chứng thực |
| Student | A person who is authorized for the website and is allowed to use all the functions of the website for his own purposes | Học Sinh |
| System handler | A group outside the website keeping runs the background in safe | Quản lý hệ thống |

| Admission staff | Creator, providing information to support student enrollment and assisting in the management and processing of admission applications | Nhân viên tuyển sinh |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Psychologist | A person who review and provide new logic quizzes to support a variety of accurate personality tests to support students | Nhà tâm lý học |
| Student Application | The noun of apply, which means the act applying for a school created and sent by a student | Đơn tuyển sinh |
| Personally Test | A logic test created by psychologists that helps students find a specific personality and a career that fits that personality | Trắc nghiệm tính cách |

1.4. References

- Refer User Case Detail:

Grap-Work

- Refer Template:

Personally test websites

- Refer Function:

SWP311

1.5. Overview

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

The third chapter, the Functional requirements section, of this document is written to describe the functionality of the product in technical terms including its use cases and details.

The fourth chapter, the Non-functional requirements section, of this document is written to describe in detail the non-functionality of the product, defining how a system should look like.

The fifth chapter, the Supporting information section, of this document provides the supporting information that makes the SRS easier to use. It includes:

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Appendices and be considered part of the requirements or not.

2. OVERALL DESCRIPTION

2.1. Product perspective

The BrainTech is a web-based application system that helps students to decide their future careers and admission staff in application approval. It will require a browser like Google Chrome, Firefox, or Microsoft Edge. The application will be able to connect to a remote server and will have a Microsoft SQL database server. It will use J2EE technology for its development.

The J2EE application will be a three-tier application with the client tier on the client machine, the web tier, and the business tier (business logic) on the J2EE server machine, and the database tier composed of the database. The business tier or the business logic will be provided by Enterprise Java Beans and the web tier will be provided by servlets and JSP pages.

2.2. Product functions

| No | Function | Detail |
|----|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Login | Allow users to enter the website's page |
| 2 | Logout | Push users to the main homepage of the website before logging in |
| 3 | Sign Up | Allows users to manually enter information to create an integrative account on the website or create via Google and FaceBook accounts |
| 4 | Search Universities | A search function that helps users find all information related to the university based on search keywords |
| 5 | Get School details | Function that allows users to dig deeper into a previously searched school |
| 6 | Search Majors | Another search function that supports users to search for general information about industries of interest to coconuts in search keywords |
| 7 | Get Majors Detail | Function that allows users to dig deeper into a previously searched major |
| 8 | Update Profile | The function allows users to edit and update personal information at will |
| 9 | View suggested school base on their interest | A function running in the background that provides some general information about universities based on user preferences |

| Take Personality Test | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------------------|-----------------------------------------------------------------------------------|
| Test comments and feedback on their tests 12 View Personality Test's Result The function allows users to see the results of their own personality after the test and the details of their previous answers. 13 See Suggested Schools A background function that takes the test data and, through some algorithm, returns the user an appropriate number of school 14 Get School Details The function of displaying detailed information about the school that the user is interested in after being suggested 15 See suggested Major A background function that takes the test data and, through some algorithm, returns the user an appropriate number of majors 16 Get Major Detail The function of displaying detailed information about the major that the user is interested in after being suggested 17 Apply For School's Major Combination of functions to support students to apply for the specialized training environment they want 18 Provide grade, academic record Function that allows students to provide scores and some related information to the processing system 19 Provide Personal Information Function that allows students to provide personal information to the processing system 20 View Admission Status A notify box showing whether own admission status has been previously approved or not System handler create the algorithm | 10 | Take Personality Test | result is a piece of their own personality |
| results of their own personality after the test and the details of their previous answers. 13 See Suggested Schools A background function that takes the test data and, through some algorithm, returns the user an appropriate number of school 14 Get School Details The function of displaying detailed information about the school that the user is interested in after being suggested 15 See suggested Major A background function that takes the test data and, through some algorithm, returns the user an appropriate number of majors 16 Get Major Detail The function of displaying detailed information about the major that the user is interested in after being suggested The function of functions to support at the user is interested in after being suggested The function of functions to support students to apply for the specialized training environment they want Provide grade, academic record Function that allows students to provide scores and some related information to the processing system Provide Personal Information Function that allows students to provide personal information to the processing system View Admission Status A notify box showing whether own admission status has been previously approved or not Suggest school majors base on user System handler create the algorithm | 11 | · | |
| test data and, through some algorithm, returns the user an appropriate number of school 14 Get School Details The function of displaying detailed information about the school that the user is interested in after being suggested 15 See suggested Major A background function that takes the test data and, through some algorithm, returns the user an appropriate number of majors 16 Get Major Detail The function of displaying detailed information about the major that the user is interested in after being suggested 17 Apply For School's Major Combination of functions to support students to apply for the specialized training environment they want 18 Provide grade, academic record Function that allows students to provide scores and some related information to the processing system 19 Provide Personal Information Function that allows students to provide personal information to the processing system 20 View Admission Status A notify box showing whether own admission status has been previously approved or not 21 Suggest school majors base on user System handler create the algorithm | 12 | View Personality Test's Result | results of their own personality after the test and the details of their previous |
| information about the school that the user is interested in after being suggested 15 See suggested Major A background function that takes the test data and, through some algorithm, returns the user an appropriate number of majors 16 Get Major Detail The function of displaying detailed information about the major that the user is interested in after being suggested 17 Apply For School's Major Combination of functions to support students to apply for the specialized training environment they want 18 Provide grade, academic record Function that allows students to provide scores and some related information to the processing system 19 Provide Personal Information Function that allows students to provide personal information to the processing system 20 View Admission Status A notify box showing whether own admission status has been previously approved or not Suggest school majors base on user System handler create the algorithm | 13 | See Suggested Schools | test data and, through some algorithm, returns the user an appropriate number |
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| information about the major that the user is interested in after being suggested 17 Apply For School's Major Combination of functions to support students to apply for the specialized training environment they want 18 Provide grade, academic record Function that allows students to provide scores and some related information to the processing system 19 Provide Personal Information Function that allows students to provide personal information to the processing system 20 View Admission Status A notify box showing whether own admission status has been previously approved or not Suggest school majors base on user System handler create the algorithm | 15 | See suggested Major | test data and, through some algorithm, returns the user an appropriate number |
| students to apply for the specialized training environment they want 18 Provide grade, academic record Function that allows students to provide scores and some related information to the processing system 19 Provide Personal Information Function that allows students to provide personal information to the processing system 20 View Admission Status A notify box showing whether own admission status has been previously approved or not 21 Suggest school majors base on user System handler create the algorithm | 16 | Get Major Detail | information about the major that the user is interested in after being |
| scores and some related information to the processing system 19 Provide Personal Information Function that allows students to provide personal information to the processing system 20 View Admission Status A notify box showing whether own admission status has been previously approved or not 21 Suggest school majors base on user System handler create the algorithm | 17 | Apply For School's Major | students to apply for the specialized |
| personal information to the processing system 20 View Admission Status A notify box showing whether own admission status has been previously approved or not 21 Suggest school majors base on user System handler create the algorithm | 18 | Provide grade, academic record | scores and some related information to |
| admission status has been previously approved or not 21 Suggest school majors base on user System handler create the algorithm | 19 | Provide Personal Information | personal information to the processing |
| | 20 | View Admission Status | admission status has been previously |
| | 21 | | |

| 22 | Get Student's Application | Function to help admissions statistics and get detailed information of student applications in the system |
|----|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 23 | Evaluate Admission Application | The system provides a number of attributes to assist applicants in evaluating the application |
| 24 | Approval Application | The function that allows the admissions person to make the final decision on the admission application and to notify the respective student's account |
| 25 | Manage School's Information | Synthesize functions to help enrollees manage information about their school |
| 26 | Provide School's Information | The function helps the admissions person to put general or detailed information about their school on the system |
| 27 | Update School's Information | Function to help enrollees edit and update their school information |
| 28 | View Personality Test Feedback | Display, statistics of student responses to personality tests to Psychologist |
| 29 | Create Personality Test | Create personality tests to help students test their personality |
| 30 | Update Personality Test | Revised the personality test questions to make the results more accurate |

2.3. Constraints

Developers should also be careful about the privacy of users. All user data will be kept on the database and necessary precautions should be taken to protect user data.

The Internet connection is a constraint for the application. Since the application fetches data from the database over the Internet, it is crucial that there is an Internet connection for the application to function.

Implement the database at least using a centralized database management system.

2.4. Assumptions and dependencies

Assumption user has an internet connection and the computer has a web browser, and the user also has knowledge about using it at minimum level (access, fill in field).

One assumption is that some library that the developers team use for develop like "reactjs", "Angularjs" or MySQL we use have issue, bug, down or update, it's will affect the website's performance or even make website down.

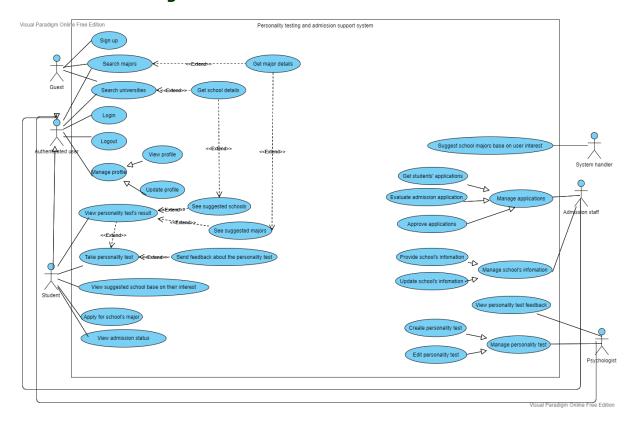
Assuming major trends change with each enrollment season, we need to make calculations to change to suit each student's needs and personality.

2.5. Business Rule

| ID | Rule Definition |
|-------|----------------------------------------------------------------------------------------------------------------|
| BR-1 | The notification sent to the user must be a push notification, it can show on device's screen |
| BR-2 | Free in code but follow the require input, return of function |
| BR-3 | All functions must be in accordance with the presets |
| BR-4 | If there is any arising function, must discuss team adding, deleting, and editing other functions |
| BR-5 | Meeting service for the online interview should be popular site such as Google Meet |
| BR-6 | The deadline for completing the function does not exceed three days and does not violate more than three times |
| BR-7 | All objections must be resolved before all members do not handle it themselves |
| BR-8 | Must complete the assigned function before assisting other members |
| BR-9 | Always create a backup after completing a function or include someone else's function |
| BR-10 | Mistakes made by one member must be resolved by all other members |
| BR-11 | Do not disclose the team's project information to any outsider who is not part of the project's mission |
| BR-12 | Happy Code – Happy Money – Happy Life |

3. FUNCTIONAL REQUIREMENTS

3.1. Use Cases Diagram



3.1.1. System Actors

| # | Actor | Description |
|---|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Guest | Guests are the people who haven't been authenticated to the system. Guests can surf the website to see more information about BrainTech, universities, and majors. |
| 2 | Authenticated user | Authenticated users are those who have logged in to the BrainTech website. Depending on the choice in registration & validation of a specific role user, an authenticated user can be a student, an admission staff, and a psychologist. |
| 3 | Student | Students are the people who have logged in to the BrainTech website as student role. Students will take the personality tests, apply for the school's major, and view suggested majors/schools based on their search results. |
| 4 | Admission staff | Admission staffs are the people who have logged in to the |

| # | Actor | Description |
|---|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | BrainTech website as admission staff role. Admission staff will manage applications and manage the school's information. |
| 5 | Psychologist | Psychologists are the people who have logged in to the BrainTech websites as psychologist role. The psychologist will manage personality tests and view personality tests' feedback. |
| 6 | System handler | BrainTech system. |

3.1.2. Use case list

| ID | Use Case | Primary Actors | Secondary Actors |
|-------|----------------------------------------------|---------------------------|------------------|
| UC-01 | Sign up | Guest | |
| UC-02 | Search schools | Guest, Authenticated user | |
| UC-03 | Get schools' details | Guest, Authenticated user | |
| UC-04 | Search majors | Guest, Authenticated user | |
| UC-05 | Get majors' details | Guest, Authenticated user | |
| UC-06 | Login | Authenticated user | |
| UC-07 | Logout | Authenticated user | |
| UC-08 | View profile | Authenticated user | |
| UC-09 | Update profile | Authenticated user | |
| UC-10 | View suggested school based on user interest | Student | |
| UC-11 | Take personality test | Student | |
| UC-12 | Send feedback about the personality test | Student | |
| UC-13 | View personality test result | Student | |
| UC-14 | See suggested schools | Student | |
| UC-15 | See suggested majors | Student | |
| UC-16 | Apply for school major | Student | |
| UC-17 | View admission status | Student | |

| UC-18 | Get Student Application | Admission Staff | |
|-------|--------------------------------|-----------------|--|
| UC-19 | Evaluate Application | Admission Staff | |
| UC-20 | Approval / Decline Application | Admission Staff | |
| UC-21 | Provide School's Information | Admission Staff | |
| UC-22 | Update School's Information | Admission Staff | |
| UC-23 | View personality test feedback | Psychologist | |
| UC-24 | Create personality test | Psychologist | |
| UC-25 | Edit personality test | Psychologist | |
| UC-26 | Suggest school | System handler | |

3.2. Use case specifications

3.2.1. Sign up

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|----------------|---------------------|------|-------|
| Use-case No. | UC-01 | Use-case Version | e | <1.0> |
| Use-case Name | Sign up | | | |
| Author | LyNTK, GiangVT | | | |
| Date | 12/10/2022 | Priority | High | |

Actor:

Guest

Summary:

This feature allows the actor to create a new account to become a student, an admission staff or a psychologist.

Triggers

The actor wants to register an account in the BrainTech web application.

Preconditions:

- PRE-1: Actor has a phone number or email or Google Account that can be used to receive an OTP number.

Post Conditions:

- POST-1: Redirect member to login page.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 1 | On sign up page, the actor selects the tab "Register student account" [Alternative 1, 2, 3] | The system shows the sign-up form including those fields: - Full name - Email - Password - Confirm password |
| 2 | Actor fills in these fields. [Exception 1, 2, 3, 4, 5] | |
| 3 | Actor clicks "Join for free". | The system checks verified email. If verified, create new student account and redirect to home page. [Exception 6] |

Alternative Scenario:

Alternative 1:

| Step | Actor Action | System Response |
|------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 1 | In sign up page, actor select tabs "Register admission staff account" | The system shows sign-up form including those fields: - Organization name - Full name - Email - Password - Confirm password |
| 2 | Actor fills in these fields. [Exception 1, 2, 3, 4, 5] | |
| 3 | Actor clicks "Join for free". | The system checks whether the email was registered and stores information in database. [Exception 6] |

Alternative 2:

| Step Actor Action | System Response |
|-------------------|-----------------|
|-------------------|-----------------|

| 1 | In sign up page, actor select tabs "Register psychologist account" | The system shows sign-up form including those fields: - Full name: - Email: - Password: - Confirm password: - Psychology degrees: |
|---|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 2 | Actor fills in these fields. [Exception 1, 2, 3, 4, 5] | |
| 3 | Actor clicks "Join for free". | The system checks whether the email was registered and stores information in database. [Exception 6] |

Alternative 3:

| Step | Actor Action | System Response |
|------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| 1 | In sign up page, actor clicks to button "Continue by Google" | System shows a popup with a list of the guest's Google accounts they have saved. |
| 2 | Actor choose one of the accounts they want to sign in | System validates email address. If correct, create new account and redirect to home page. [Exception 6] |

Exceptions:

| r | No | Cause | System Response |
|---|----|-----------------------------------------------|-------------------------------------------------------------|
| | 1 | Full name is blank. | The system informs "Please fill in full name." |
| | 2 | Email is blank. | The system informs "Please fill in email." |
| | 3 | Password is blank. | The system informs "Please fill in password" |
| | 4 | Confirm password is blank. | The system informs "Please fill in confirm password" |
| | 5 | Confirm password is not the same as password. | System informs "Password doesn't match. Please re-confirm." |
| | 6 | The email has been registered before. | The system informs "Email has been registered" |

| _ | | | |
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| VC | iativ | nshi | ps. |

Business Rules:

<Any concern about the business>

3.2.2. Search universities

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|---------------------|-------------|--------|-------|
| Use-case No. | UC-02 | Use-case Ve | rsion | <1.0> |
| Use-case Name | Search universities | | | |
| Author | GiangVT | | | |
| Date | 18/10/2022 | Priority | Medium | |

Actor:

Guest, Authenticated user

Summary:

This feature allows actor to search for candidates according to the input keyword.

<u>Triggers</u>

The actor wants to search universities.

Preconditions: N/A Post Conditions:

- POST-1: Success: The system displays a list of candidates that satisfies input keywords.

- POST-2: Fail: System inform "Sorry we couldn't find any results".

Main Success Scenario:

| Step | Actor Action | System Response |
|------|---------------------------------|-----------------------------------------------------------------------------------|
| 1 | Actor selects tab "University". | The system redirects to university page and show list all available universities. |

| 2 | Actor types keywords into search textbox. | System shows a hide suggestion text for search in search textbox is "University name, abbreviation, keyword," |
|---|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 3 | Actor clicks "Search" icon or presses enter key. | System shows list of universities that match with keywords. [Exception 1] |
| 4 | Actor choices options in filters according university catalog, hot university and sorters | System shows list of candidates that match with actors requires. [Exception 1] |

Alternative Scenario: N/A

Exceptions:

| No | Cause | System Response |
|----|-----------------|------------------------------------------------------------------------|
| 1 | Result is empty | System informs "Sorry, we couldn't find any results for your request". |

Relationships:

Business Rules:

The result universities are responded to the actor if the keyword is in the title, keywork, abbreviation or university name.

The default values of fields of sorter are: "Top university" and display "10 entities".

3.2.3. Get university's detail

| USE CASE-n SPECIFICATION | | | |
|--------------------------|-------------------------|------------------|-------|
| Use-case No. | UC-03 | Use-case Version | <1.0> |
| Use-case Name | Get university's detail | | |
| Author | GiangVT | | |

| Date 21/10/2022 P | Priority | Medium |
|---------------------------------|----------|--------|
|---------------------------------|----------|--------|

Guest, Authenticated user

Summary:

This feature allows actor to see full information of a university such as name, school's majors, quality, ...

Triggers

The actor wants to view the detail information of a university so then they can contact them.

Preconditions:

The university public their profile.

Post Conditions:

- POST-1: Success: Show detail information of enterprise.
- POST-2: Fail: Show not found page if the enterprise is not existed or Enterprise is not public their profile.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Click to university detail's card. [Alternative 1] | Redirect to university detail information page. The website shows university detail information such as: - University name - Abbreviation - Founded year - Specific address - Core training majors - Contact information - Description (if any) |

Alternative Scenario:

| Step Actor Action | System Response |
|-------------------|-----------------|
|-------------------|-----------------|

| 1 | In browser search box, actors enter a links of enterprise detail with format "braintech.com/search/ university/{universityId }" | Redirect to university detail information page. The website shows university detail information such as: - University code - University name - Founded year - Specific address - Core training majors - Contact information - Description (if any) [Exception 1] |
|---|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|---|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Exceptions:

| No | Cause | System Response |
|----|-------------------------------------------------|-----------------------------------|
| 1 | Enterprise is not found in production database. | Redirect to not found page (404). |

Relationships:

Business Rules:

The location of the job must be rendered in map view. If actors click to the map view, the system will redirect to work location in Google Map.

The system must keep track of the number of views of the university.

3.2.4. Search Majors

| USE CASE-n SPECIFICATION | | | |
|--------------------------|--------------|------------------|-------|
| Use-case No. | UC-04 | Use-case Version | <1.0> |
| Use-case Name | Search Major | | |

| Author | ThanhLQ | | |
|--------|------------|----------|--------|
| Date | 12/10/2022 | Priority | Medium |

Guest, Authenticated user

Summary:

This feature allows the actor to see the summary of the majors they looking for based on keywords.

Triggers

The actor wants to search for some information about some majors

Preconditions: The actor search keywords of the major and then sees the summary information they want

Post Conditions:

- POST-1: Success: The system displays a list of majors that satisfies input keywords.
- POST-2: Fail: System informs "Sorry we couldn't find any results".

Main Success Scenario:

| Step | Actor Action | System Response |
|------|--------------------------------------------------|--------------------------------------------------------------------------------------------|
| 1 | Actor selects tab "Major". | System redirects to major page and show list all available majors. |
| 2 | Actor types keywords into search textbox. | System shows a hide suggestion text for search in search textbox is "major name, key word" |
| 3 | Actor clicks "Search" icon or presses enter key. | System shows list of major that match with keywords. [Exception 1] |

Actor choices options in filters
according major popular, hot
major... and sorters

System shows list of major
that match with actors
requires. [Exception 1]

Alternative Scenario: N/A

Exceptions:

| No | Cause | System Response |
|----|-----------------|------------------------------------------------------------------------|
| 1 | Result is empty | System informs "Sorry, we couldn't find any results for your request". |

Relationships:

Business Rules:

The result universities responded to the actor if the keyword is in the title, keyword, abbreviation, or university name.

The default values of fields of sorter are: "Top university" and display "10 entities".

3.2.5. Get Major Details

| USE CASE-n SPECIFICATION | | | |
|--------------------------|-------------------|------------------|--------|
| Use-case No. | UC-05 | Use-case Version | <1.0> |
| Use-case Name | Get Major Details | | |
| Author | ThanhLQ | | |
| Date | 12/10/2022 | Priority | Medium |

Guest, Authenticated user

Summary:

This feature allows the actor to see detail about the major they looking for

Triggers

The actor want to see detailed information of major.

Preconditions:

Major exists

Post Conditions:

• POST-1: Success: Show detailed information about the major.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 1 | Click to major detail's showing on search bar. | Redirect to university detail information page. The website shows major detail information such as: |
| | | - Major Name |
| | | - Major Job |
| | | - Major popular |
| | | - Major Require |
| | | - Description (if any) |

Alternative Scenario: N/A

Exceptions: N/A

Relationships: N/A

Business Rules: All detailed information comes from true source

3.2.6. Login

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|------------|-------------|---------|-------|
| Use-case No. | UC-06 | Use-case Ve | rsion | <1.0> |
| Use-case Name | Login | | | |
| Author | ThanhLQ | | | |
| Date | 12/10/2022 | Priority | Usually | |

Actor:

Authenticated user

Summary:

This feature allows actor to login to website

Goal:

<Briefly describe the goal of used case >

Triggers

The actor want to authorize to the system so that they will use own account they register before.

Preconditions: Actor already have an account in website

Post Conditions:

- POST-1: Success: System redirects actor to the to the authenticated User Page
- POST-2: Fail: The system displays an error message according to the error code

Main Success Scenario:

| Step | Actor Action | System Response |
|------|------------------------------------------|-----------------------------------------------------------|
| 1 | In Home Page actor click on login button | The system display form input include: - Email - Password |
| 2 | In input form actor fill all blank | [Exception 1] [Exception 2] [Exception 3] |

| 3 | If input correct, system redirect actor to authenticated user page |
|---|--------------------------------------------------------------------|
| | to data to the date and a parity |

Alternative Scenario:

Alternative 1:

| Step | Actor Action | System Response |
|------|---------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 1 | In login page, actor selects tab "Continue with Google" | System redirects to Google Account Page |
| 2 | Actor chooses Google Account and login | System checking Google Account if no exception, send redirect actor to authenticated user page |

Alternative 2:

| Step | Actor Action | System Response |
|------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 1 | In login page, actor selects tab "Continue with Facebook" | System redirects to Facebook Account sign in |
| 2 | Actor input facebook login information | System checking Facebook Account if no exception, send redirect actor to authenticated user page |

Alternative 3:

| Step | Actor Action | System Response |
|------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | In login page, actor selects tan "Forgot Password" | System show up notify user and give a blank input for user include: Email Or Phone |
| 2 | User fill blank | System checking input blank, if email or phone have exits in website send an OTP to user depend on user input then show up blank input 5 number of OTP [Exception 4] |

| 3 User get and input OTP | System checking OTP if correct send back current password and ask user to change it |
|--------------------------|-------------------------------------------------------------------------------------|
|--------------------------|-------------------------------------------------------------------------------------|

Exceptions:

| No | Cause | System Response |
|----|-----------------------------|----------------------------------------------------------|
| 1 | At least one input is empty | System shows error with message depend on blank is empty |
| 2 | Email is incorrect | System show error with message "Incorrect Email" |
| 3 | Password is incorrect | System show error with message "Incorrect Password" |
| 4 | The OPT is incorrect | System shows error with message "Wrong OTP" |

Relationships: N/A
Business Rules:

OTP input no longer than 5 minutes

3.2.7. Log Out

| USE CASE-n SPECIFICATION | | | |
|--------------------------|---------|------------------|-------|
| Use-case No. | UC-07 | Use-case Version | <1.0> |
| Use-case Name | Log Out | | |
| Author | ThanhLQ | | |

Authenticated user

Summary:

This feature allows the actor to log out of the website and become a guest.

Triggers

The actor wants to sign out current account from the website

Preconditions: The actor has already login in to the website

Post Conditions:

- POST-1: Success: System redirects actor to the home page
- POST-2: Fail: The system displays an error message according to the error code

Main Success Scenario:

| Step | Actor Action | System Response |
|------|------------------------------------------------------|---------------------------------------------------------------------|
| 1 | In authenticated user page actor clicks to "Log Out" | Delete all session and redirect user out to home page [Exception 1] |

Alternative Scenario: N/A

Exceptions:

| No | Cause | System Response |
|----|--------------------|----------------------------------------------------------------------------|
| 1 | Send redirect fail | System shows an error with message "Some things wrong is happen try again" |

Relationships: N/A

Business Rules:

If the error still happens in five-time collapse the website.

3.2.8. View profile

USE CASE-n SPECIFICATION

| Use-case No. | UC008 | Use-case Ve | rsion | <1.0> |
|---------------|--------------|-------------|--------|-------|
| Use-case Name | View profile | | | |
| Author | GiangVT | | | |
| Date | 08/10/2022 | Priority | Normal | |

Authenticated user

Summary:

This feature allows the actor to view their profile.

Goal:

Student can view their information successfully.

Triggers

The actor wants to view their profile.

Preconditions:

- PRE-1. The actor has logged in to the system with one of the following roles: student, psychologist, and admission staff.
- PRE-2. The actor has already activated their basic information.

Post Conditions:

- Success: Display a page that full display of profile information.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Actor access to My profile page | Redirect to profile page. The website shows profile statistic detailed information such as: - Name Email Avatar Phone Description. |

Alternative Scenario: N/A

Exceptions: N/A Relationships:

<List the relationships that use case relates to>

Business Rules: N/AA

3.2.9. Update profile

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|----------------|----------|-----------|-------|
| Use-case No. | UC009 | Use-case | e Version | <1.0> |
| Use-case Name | Update profile | | | |
| Author GiangVT | | | | |
| Date | 8/10/2022 | Priority | Normal | |

Actor:

Authenticated user

Summary:

This feature allows the actor to update some or all their information.

Goal:

Student can update their information successfully.

Triggers

The actor wants to update some or all of their information.

Preconditions:

- PRE-1. The actor has logged in to the system with one of the following roles: student, psychologist, and admission staff.
- PRE-2. The actor has already activated their basic information.

Post Conditions:

- Success: The system update enterprise information in production database. Then, show successful message in popup.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|--------------------------|----------------------------------------------------------------------------------------|
| 1 | Clicks on "Edit" button. | The system shows a form with these fields: - name: text input, required, max-length 30 |

| | | - email: text input, required, max-length 50 - Button for uploading logo image from local phone: number, max-length 10 - description: text input, max-length 100 [Exception 1] |
|---|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | The actor clicks to "Update" button. | The system saves the update and shows the message "Update successfully". |

Alternative Scenario: N/A

Exceptions:

| No | Cause | System Response |
|----|-----------------------------|------------------------------------------------------------------------|
| 1 | Avatar is bigger than 10 MB | System informs "Please choose an image that is less than 10MB in size" |

Relationships:

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.10. View suggested schools based on user interest

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|----------------------------------------------|--|-------|--|
| Use-case No. | UC-10 Use-case Version <1.0> | | <1.0> | |
| Use-case Name | View suggested school based on user interest | | | |
| Author | LyNTK | | | |
| Date | 11/10/2022 Priority High | | | |
| Actor: | | | | |

Student

Summary:

This feature allows the actor to view suggested schools based on their interest.

Triggers

When the actor logs in to the BrainTech system, the algorithm will automatically suggest majors based on the user's search histories and personality test results.

Preconditions:

- PRE-1. Actor logs in to the BrainTech website as student role.

Post Conditions:

- POST-1. The system shows a list of schools when the actor accesses the BrainTech web application's dashboard.
- POST-2. The system sends notifications to the actor when having suitable suggested schools.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | This function is automatically performed on the server side periodically. | The system runs the algorithm to find out all suitable schools for the actor. Then the system sends notifications about the suggested schools to the actor. |

Alternative Scenario: N/A

Exceptions: N/A **Relationships:**

<List the relationships that use case relates to>

Business Rules: N/A

3.2.11. Take personality test

| USE CASE-n SPECIFICATION | | | |
|--------------------------|-------|---------------------|-------|
| Use-case No. | UC-11 | Use-case Version | <1.0> |

| Use-case Name | Take personality test | | |
|---------------|-----------------------|----------|------|
| Author | LyNTK | | |
| Date | 11/10/2022 | Priority | High |

Student

Summary:

This feature allows the actor to take the personality test.

Triggers

The actor wants to take a personality test.

Preconditions:

- PRE-1. Actor logs in to the BrainTech website as student role.

Post Conditions:

- POST-1. The system shows actor's personality test's result.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Actor clicks "Start personality test". | The system shows a form including the field: - Personality test type: drop list, required, options: "Myers-Briggs" or "The Big 5", "Jungian" or "NERIS" |
| 2 | Actor chooses the test type in drop list and clicks "Start the test" button. | The system shows the personality test including: - Personality test name - At most 5 personality test's questions including: + Question + Answer: select input, required |
| 3 | Actor chooses answers for each question. | |
| 4 | Actor clicks "Next" button. [Exception 1] | The system continuously shows the personality test including: - Personality test name - At most 5 personality test's questions including: + Question + Answer: select input, required |

| 5 | Repeat steps 3 & 4 | |
|---|---------------------------------------------|-------------------------------------------------|
| 6 | Actor clicks "Finish" button. [Exception 1] | The system shows the personality test's result. |

Alternative Scenario: N/A

Exceptions:

| No | Cause | System Response |
|----|-------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 1 | Actor doesn't choose answer for question. | The system informs "You haven't choose answer for question <number_of_question>".</number_of_question> |

Relationships:

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.12. Send feedback about personality test

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|--------------------------------------|---------------------|--------|-------|
| Use-case No. | UC-12 | Use-case Version | | <1.0> |
| Use-case Name | Send feedback about personality test | | | |
| Author | Author LyNTK | | | |
| Date | 17/10/2022 | Priority | Normal | |

Actor:

Student

Summary:

This feature allows the actor to send feedback about personality test.

Triggers

The actor wants to send feedback about personality test.

Preconditions:

- PRE-1. Actor logs in to the BrainTech website as student role.
- PRE-2. The personality test has mistakes.

Post Conditions:

- POST-1. The system informs "Send feedback successfully".

Main Success Scenario:

| Step | Actor Action | System Response |
|------|---------------------------------------------------------------------|---------------------------------------------------------|
| 1 | Actor clicks "Send feedbacks" in faulty questions or faulty result. | The system shows the feedback form including: - Mistake |
| 2 | Actor fills in the form. | |
| 3 | Actor clicks "Send feedback". | The system stores feedbacks in the database. |

Alternative Scenario: N/A

Exceptions: N/A **Relationships:**

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.13. View personality test's result

| USE CASE-n SPECIFICATION | | | |
|--------------------------|--------------------------------|---------------------|-------|
| Use-case No. | UC-13 | Use-case Version | <1.0> |
| Use-case Name | View personality test's result | | |
| Author | LyNTK | | |

| Date 11/10/2022 | Priority | High |
|------------------------|----------|------|
|------------------------|----------|------|

Student

Summary:

This feature allows the actor to view the personality test's result.

Triggers

The actor wants to view the personality test's result.

Preconditions:

- PRE-1. Actor logs in to the BrainTech website as student role.
- PRE-2. The actor have done at least a personality test before.

Post Conditions:

- POST-1. The system shows personality test's result.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 1 | Actor clicks "View personality test's results" or clicks "View result" when they finish the personality test. | The system shows personality test types. |
| 2 | Actor chooses test type. | The system shows the latest result of the chosen personality test & its interpretation. [Exception 1] |

Alternative Scenario: N/A

Exceptions:

| No | Cause | System Response |
|----|---------------------------------------|-----------------------------------------------------------------------------------------|
| 1 | Actor has never done the test before. | The system informs "You haven't taken <personality_test_name>".</personality_test_name> |

Relationships:

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.14. See suggested majors based on personality test

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|------------------------------------------------|---------------------|------|-------|
| Use-case No. | UC-14 | Use-case Version | 2 | <1.0> |
| Use-case Name | See suggested majors based on personality test | | | |
| Author | Lyntk | | | |
| Date | 20/10/2022 | Priority | High | |

Actor:

Student

Summary:

This feature allows the actor to see suggested majors based on personality test.

Triggers

The actor wants to see suggested majors based on personality test.

Preconditions:

- PRE-1. Actor logs in to the BrainTech website as student role.
- PRE-2. The actor has taken at least a personality test before.

Post Conditions:

- POST-1. The system shows a list of suitable majors.

Main Success Scenario:

| Step | Actor Action | System Response | | |
|------|-------------------------------------------------------------------------------------------|-------------------------------------------------|--|--|
| 1 | In the personality test's result page, the actor clicks "View suitable occupations" | The system shows you a list of suitable majors. | | |

Alternative Scenario: N/A

Exceptions: N/A **Relationships:**

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.15. See suggested schools based on personality test

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|-------------------------------------------------|---------------------|------|-------|
| Use-case No. | UC-15 | Use-case Version | 2 | <1.0> |
| Use-case Name | See suggested schools based on personality test | | | |
| Author | LyNTK | | | |
| Date | 11/10/2022 | Priority | High | |

Actor:

Student

Summary:

This feature allows the actor to see suggested schools based on personality test.

Triggers

The actor wants to see suggested schools based on personality test.

Preconditions:

- PRE-1. Actor logs in to the BrainTech website as student role.

Post Conditions:

- POST-1. The system shows schools that have the suitable major in the taken personality test.

| Step | Actor Action | System Response |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1 | In the personality test's suitable occupations page, the actor clicks "View suggested schools for this occupations" button next to the major name. | The system shows you a list of suggested schools for the chosen major. [Exception 1] |

Alternative Scenario: N/A

Exceptions: N/A **Relationships:**

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.16. Apply for school's major

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|--------------------------|---------------------|------|-------|
| Use-case No. | UC-16 | Use-case Version | 1 | <1.0> |
| Use-case Name | Apply for school's major | | | |
| Author | GiangVT | | | |
| Date | 11/10/2022 | Priority | High | |

Actor:

Student

Summary:

This feature allows actor to apply for their school's major.

Triggers

The actor wants to submit their grades, personal information, and academic records to apply for their school's major

Preconditions:

- PRE-1. The actor logins into the system by student role.

Post Conditions:

- POST-1. Success: The system saves their personal information and shows a successful message on a popup dialog.
- POST-2. Fail: The system shows a specific error message on a popup dialog.

| Step Actor Action | System Response |
|-------------------|-----------------|
|-------------------|-----------------|

| 1 | In the "Apply for school's major" page, the actor chooses their information. | The system displays a "School's major" options with these fields: - Major: select input, required, options: "IT" or "Finance", |
|---|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | Actor clicks on the "Next" button | The system displays the "University" page |
| 3 | In the "University" page, the actor chooses their information. | The system displays a "School's major" options with these fields: - University: select input, required, options: "FPT university" or "Bach Khoa University", [Exception 1] |
| 4 | Actor clicks on the "Next" button | The system displays the "Personal Information" page |
| 5 | In the "Personal Information" page, the actor enters their information. | The system displays a "Student information" form with these fields: - Full name: text input, required, max limit length is 30 Gender: select input, required, options: "Male", "Female" or "Other" Date of birth: date input, required, format: dd-mm-yyyy Ethnicity: select input, required, options: "Kinh" or "Tày", Birthplace: select input, required, options: "TP. Hô Chí Minh" or "Đà Nẵng" Graduation year: number input, required, max number length is 4 CMND/CCCD number: number input, required, max number length is 12 Grant date: date input, required, format: dd-mm-yyyy Grant place: select input, required, options: "TP. Hô Chí Minh" or "Đà Nẵng", Permanent residence: text input, required, max limit length is 100 Learning place: + 10th grade: text input, required, max limit length is 100. + 11th grade: text input, required, max limit length is 100. + 12th grade: text input, required, max limit length is 100 Address: text input, required, max limit length is 200 Address: text input, required, max limit length is 200 Phone: number input, required, max limit length is 200. |

| | | number length is 10 Email: email input, required, max limit length is 100. [Exception 2,3,4,5,6,7,8,9,10,11,12,13,14,15,17,1 7] |
|---|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6 | Actor clicks on the "Next" button | The system displays the "Grades and academic records" page |
| 7 | In the "Grades and academic records" page, The actor enters their grades. | The system displays form with these fields: - GPA of 10th-grade subjects: number input, max length is 3 GPA of 11th-grade subjects: number input, max limit length is 3 GPA of 12th-grade subjects: number input, max limit length is 3 Academic records: file input, less than 10 MB, jpg or png format. [Exception 18,19,20,21] |

Alternative Scenario: N/A

| Step | Cause | System Response |
|------|----------------------------------------|----------------------------------------------------------------------------------|
| 1 | Major do not exist in that university. | The system shows an error message: "This major do not exist in this university". |
| 2 | Full name is null. | The system shows an error message: "Please fill in your full name". |
| 3 | Gender is null. | The system shows an error message: "Please fill in your gender". |
| 4 | Date of birth is null. | The system shows an error message: "Please fill in date of birth". |
| 5 | Ethnicity is null. | The system shows an error message: "Please fill in ethnicity". |
| 6 | Birthplace is null. | The system shows an error message: "Please fill in birthplace". |
| 7 | Graduation year is null. | The system shows an error message: "Please fill in graduation year". |

| 8 | CMND/CCCD number is in the wrong format. | The system shows an error message: "Please enter the correct CMND/CCCD number format". |
|----|--------------------------------------------------|----------------------------------------------------------------------------------------|
| 9 | Permanent residence is null. | The system shows an error message: "Please fill in permanent residence". |
| 10 | Grant date is null. | The system shows an error message: "Please fill in grant date". |
| 11 | Grant place is null. | The system shows an error message: "Please fill in grant place". |
| 12 | 10th grade is null. | The system shows an error message: "Please fill in this field". |
| 13 | 11th grade is null. | The system shows an error message: "Please fill in this field". |
| 14 | 12th grade is null. | The system shows an error message: "Please fill in this field". |
| 15 | Address is null. | The system shows an error message: "Please fill in address". |
| 16 | Phone number is in the wrong format. | The system shows an error message: "Please enter the correct phone number format". |
| 17 | Email is wrong format. | System shows error message: "Please enter the correct email number format". |
| 18 | GPA of 10th grade subjects is null | System shows error message: "Please fill in this field". |
| 19 | GPA of 11th grade subjects is null | System shows error message: "Please fill in this field". |
| 20 | GPA of 12th grade subjects is null | System shows error message: "Please fill in this field". |
| 21 | Academic records file is not .doc or pdf format. | System shows error message: "Please select .doc or pdf file". |

<List the relationships that use case relates to>

Business Rules:

• Potential students are Vietnamese, so phone number's format has length is 10 or 11.

• "Ethnicity" are select input fields, the actor chooses options from the system. If the target options of the actor do not exist, "others" is an alternative option for the actor.

3.2.17. View admission status

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|-----------------------|---------------------|-----|-------|
| Use-case No. | UC-17 | Use-case Version |) | <1.0> |
| Use-case Name | View admission status | | | |
| Author | GiangVT | | | |
| Date | 11/10/2022 | Priority | Low | |

Actor:

Student

Summary:

This feature allows actor to view their admission status that they submitted.

Goal:

Student can view their admission status successfully.

Triggers

The actor wants to view admission status.

Preconditions:

- PRE-1. Actor login into the system by student role.

Post Conditions:

- Success: The system lists student's admission status on the screen.

| Step | Actor Action | System Response |
|------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Actor access to admission history page. | The system displays a "Result admission status" list with fields -Full nameUniversities that student submittedAdmission status: action: "Not approve", "Approved". |

Alternative Scenario: N/A

Exceptions: N/A Relationships:

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.18. Get student's application

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|---------------------------|---------------------|--------|-------|
| Use-case No. | UC-18 | Use-case Version |) | <1.0> |
| Use-case Name | Get Student's Application | | | |
| Author | ThanhLQ | | | |
| Date | 12/10/2022 | Priority | Mediun | n |

Actor:

Admission staff

Summary:

This feature allows actor to see and search all application have on website

Triggers

The actor wants to see all student application have on website

Preconditions:

- PRE-1. Students who have applied for admission on the website

Post Conditions:

- POST-1. Success: The system shows lists of student application
- POST-2. FAIL: The system show message "There no have any student application"

| Step | Actor Action | System Response |
|------|------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1 | In addmission staff page actor click on button "See Application" | The system displays a list summary of application relate to school of actor |

| | | [Exception 1] |
|---|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | Actor clicks on options to sort applications by submission time, unapproved, approvedetc | The system displays a list summary of application follow sort actor chose [Exception 2] |
| 3 | Actor clicks on the student application | The system displays the file name that the student has submitted: file input, less than 10 MB, jpg or png format. and show all detail information |

Alternative Scenario: N/A

Exceptions:

| No | Cause | System Response |
|----|--------------------------------------------------|----------------------------------------------------------------------|
| 1 | The student has not submitted an application yet | System shows error message: "There no have any student application". |
| 2 | There no field suit with this sort | System shows error message: "No matching data". |

Relationships:

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.19. Evaluate application

| USE CASE-n SPECIFICATION | | | | | |
|--------------------------|-------------------------------------|----------|-------|--|--|
| Use-case No. | Use-case No. UC-19 Use-case Version | | <1.0> | | |
| Use-case Name | Evaluate application | | | | |
| Author | LyNTK | | | | |
| Date | 20/10/2022 | Priority | High | | |

Actor:

Admission staff

Summary:

This feature allows the actor to evaluate applications based on their specific categories.

Triggers

The actor wants to evaluate applications based on their specific categories.

Preconditions:

- PRE-1. Actor logs in to the BrainTech website as admission staff role.

Post Conditions:

- POST-1. The system shows a list of applications meeting the requirements.

Main Success Scenario:

| Step | Actor Action | System Response |
|------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | In the "Manage applications" page, the actor clicks on the drop list "Add filter". | The system shows a list of options including: Registered major: options: all available majors in that school Level of certificate of high school: options: Excellent, Very good, Good, Fairly good, Average, Below average, Weak, Poor Conduct: options: Good, Fairly good, Medium, Weak GPA including: options: >, <, =, >=, <= grade input: number, min value 0, max value 10 Graduation grade including: options: >, <, =, >=, <= grade input: number, min value 0, max value 35 |
| 2 | Actor chooses a filter & specify condition for that filter. | The system shows a list of applications satisfying all the filters. [Exception 1] |
| 3 | Actor repeats actions 2 until the applications fulfill requirements. | |

Alternative Scenario: N/A

| No | Cause | System Response |
|----|-----------------------------------------|----------------------------------------------------------------------------------------------|
| 1 | The applications don't satisfy filters. | The system informs "Sorry, we couldn't find the results for your request. Please try again." |

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.20. Approval Student Application

| USE CASE-n SPECIFICATION | | | | | |
|---------------------------------------|------------------------------|---------------------|---|-------|--|
| Use-case No. | UC-20 | Use-case Version | | <1.0> | |
| Use-case Name | Approval Student Application | | | | |
| Author | ThanhLQ | | | | |
| Date 14/10/2022 Priority Medium | | | n | | |

Actor:

Admission Staff

Summary:

This feature allows the actor to approve the student application then support send it to school they register and notification back to student account

Goal:

This feature support to admission staff can management student application

Triggers

The actor want to approve the student application after evaluate it

Preconditions:

PRE-1. The schools of the admission have applications sent to

Post Conditions:

- POST-1. Success: The system shows lists of student application for student.
- POST-2. Fail: The system shows error message according to error type

Main Success Scenario:

| Step | Actor Action | System Response |
|------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | In Admission Page Actor click on tab "Show Application" | The system get and displays all students application have in database in summary show on screen with their field: - Student Name - Title - Major School Wish |
| 2 | In the display tab Actor will click on a button "Detail" in end of each tab | System shows a detail information of application on screen with their field: - School Name - Major Training - Scholarship - Detail Wishes - Reasonable - Personal Infor |
| 3 | In the display detail Actor click on button "Approval" | Actor chose Approval send an email with attach student application to the email student register, display on screen message "Approval Success" [Exception 1, 2] |

Alternative Scenario: N/A

| Step Cause | System Response |
|------------|-----------------|
|------------|-----------------|

| 1 | Email send to undefined account email | System shows error with message "Approval Failed the account not exit" |
|---|---------------------------------------|------------------------------------------------------------------------|
| 2 | Account student has unregistered | System shows error with message "Student not found failed approval" |

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.21. Provide school's information

| USE CASE-n SPECIFICATION | | | | | |
|--------------------------------------|------------------------------|----------|-------|--|--|
| Use-case No2. UC-21 Use-case Version | | • | <1.0> | | |
| Use-case Name | Provide school's information | | | | |
| Author | LyNTK | | | | |
| Date | 19/10/2022 | Priority | High | | |

Actor:

Admission staff

Summary:

This feature allows the actor to provide school's information.

Triggers

The actor wants to provide school's information.

Preconditions:

- PRE-1. Actor logs in to the BrainTech website as admission staff role.
- PRE-2. The school doesn't exist in BrainTech database.

Post Conditions:

- POST-1. The system informs "Provide school's information successfully".

| Step | Actor Action | System Response |
|------|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Actor clicks "Provide school's information". [Exception 1, 2, 3, 4, 5, 6, 7, 8] | The system shows the form including fields: - School name: text input, required max length 150 - Logo: image input, less than 10 MB - Address: text input, required max length 150 - Infrastructure: text input, required max length 150 - Majors: select input, required, options: fine art, communication art, etc - Curriculum: text input, required, min length: 3000 - Lecturers' information: text input, required, max length 150 - Scholarship program: text input - Detail: text input, required, max length 1500 - Hot Line: tel input, required |
| 2 | Actors fills in the form. | |
| 3 | Actor clicks "Submit". [Exception 9] | The system stores the information in the database. |

Alternative Scenario: N/A

| No | Cause | System Response |
|----|----------------------------------|-------------------------------------------------------|
| 1 | School name is blank. | The system informs "School name is blank." |
| 2 | Address is blank. | The system informs "Address is blank." |
| 3 | Infrastructure is blank. | The system informs "Infrastructure is blank." |
| 4 | Majors is blank. | The system informs "Majors is blank." |
| 5 | Curriculum is blank. | The system informs "Curriculum is blank." |
| 6 | Lecturers' information is blank. | The system informs "Lecturers' information is blank." |
| 7 | Hot Line is blank. | The system informs "Hot Line is blank." |

| 8 | Details is blank. | The system informs "Detail is blank." |
|---|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 9 | The school already exists. | The system informs "This school already exists. If you want to change school information, please clicks on edit school information" |

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.22. Update School Information

| USE CASE-n SPECIFICATION | | | | | |
|--------------------------|------------------------------|----------|-------|-------|--|
| Use-case No. | UC-22 Use-case Version <1.0> | | | <1.0> | |
| Use-case Name | Update School Information | | | | |
| Author | ThanhLQ | | | | |
| Date | 14/10/2022 | Priority | Mediu | m | |

Actor:

Admission Staff

Summary:

This feature allows actor edit new information relate to school that has on web application

Goal:

<Briefly describe the goal of used case >

Triggers

The actor want to update information of school in to the PTASS web application that has provide before

Preconditions:

- PRE-1. Actor has some new information of the school include school name, major training, hot line, scholarship, etc. That can be used to update school information

Post Conditions:

- POST-1. Success: New Information insert in to database and display on screen in relevant function with the success message
- POST-2. Fail: The system displays an error message according to the error code

Main Success Scenario:

| Step | Actor Action | System Response |
|------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | In Admission Page Actor click on tab "show all school Information" | The system displays all relate school information that the actor pre-generated or has on the database |
| 2 | In the display tab Actor will click on a button "Edit" in side of school name | System shows a form allow Actor choosing input with some their field: - School Name - Address - Infrastructure - Majors - Curriculum - Lecturers' information - Major Training - Scholarship - Detail - Location - Hot Line With Majors is choosing from system [Exception 1] |
| 3 | Actor inputs these field | |
| 4 | Actor click on "Update" under the form | System will validates all field check the wrong text input if all correct send message "Update Successfull" [Exception 2-11] |

Alternative Scenario: N/A

| No | Cause | System Response |
|----|-------------------------------------------------------------|-----------------------------------------------------------------------|
| 1 | Only edit each 24 hours | System shows error with message "You can't update right now!" |
| 2 | School Name have undefined character in text or over lenght | System shows error with message "Your Information Is Illegal!" |
| 3 | Address have undefined character | System shows error with message "Can not contain undefined character" |
| 4 | Over length Infrastructure | System shows error with message "Field input is over length" |
| 5 | Over length Curriculum | System shows error with message "Field input is over length" |
| 6 | Over length Lecturers' information | System shows error with message "Field input is over length" |
| 7 | Over length Major Training | System shows error with message "Field input is over length" |
| 8 | Over length Scholarship | System shows error with message "Field input is over length" |
| 9 | Over length Location | System shows error with message "Field input is over length" |
| 10 | Incorrect input phone | System shows error with message "Incorrect Phone" |
| 11 | Major not load out from System | System notify suggest user reload page |

<List the relationships that use case relates to>

Business Rules:

If actor using function update school this school will be move from viewing in website by other user until complete update

3.2.23. View personality test feedback

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|--------------------------------|---------------------|-----|-------|
| Use-case No. | UC-23 | Use-case Version | | <1.0> |
| Use-case Name | View personality test feedback | | | |
| Author | LyNTK | | | |
| Date | 11/10/2022 | Priority | Low | |

Actor:

Psychologist

Summary:

This feature allows the actor to view personality test feedback.

Triggers

The actor wants to view personality test feedback.

Preconditions:

- PRE-1. Actor logs in to the BrainTech website as a psychologist role.
- PRE-2. The actor at least has B.A. or B.S. in psychology.

Post Conditions:

- POST-1. The system shows personality test feedback.

| Step | Actor Action | System Response |
|------|-------------------------------------|---------------------------------------------------------------------|
| 1 | Actor chooses the personality test. | The system shows 2 options: - Edit personality test - View feedback |

2 Actor clicks "View feedback" The system shows feedbacks on the chosen personality test.

Alternative Scenario: N/A

Exceptions: N/A **Relationships:**

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.24. Create personality test

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|-------------------------|---------------------|------|-------|
| Use-case No. | UC-24 | Use-case Version | | <1.0> |
| Use-case Name | Create personality test | | | |
| Author | LyNTK | | | |
| Date | 07/10/2022 | Priority | High | |

Actor:

Psychologist

Summary:

This feature allows the actor to create a new personality test.

Triggers

The actor wants to create a personality test.

Preconditions:

- PRE-1. Actor logs in to the BrainTech website as a psychologist role.
- PRE-2. The actor at least has B.A. or B.S. in psychology.

Post Conditions:

- POST-1. Success: The system stores new personality tests & shows the success message.
- POST-2. Fail: The system shows the error message.

| Step | Actor Action | System Response |
|------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Actor clicks "Create" button in the personality test management page. | The system shows a personality test's form including fields: - Personality test's name: text input, required, max limit length is 200 - Personality test's description: text input, max limit length is 500 - Picture: image input, less than 10MB |
| 2 | Actor fills in the form. [Exception 1, 2] | |
| ω | Actor clicks "Add result". | The system shows a personality result's form including fields: - Personality type's name: text input, required, max limit length 200 - Picture: image input, less than 10MB - Personality type's general description: text input, required, minimum limit length 500 - Personality type's strength & weakness: text input - Personality type's suggested occupations: multiple choice select, required, options: software engineering, analysts, artist, etc |
| 4 | Actor fills in the form. [Exception 3, 4, 5] | |
| 5 | Repeat 3 & 4 | |
| 6 | Actor clicks "Add question" button. | The system shows a personality test's question form including fields: - Question: text input, required - Number of answers that the question requires: number input, required, min value is 1, default is 1 - 4 default answer forms including: + Answer: text input, required, max length 500 + Related result: select, required, option: personality type's names |
| 7 | Actor fills in question form. [Exception 3, 4] | |

| | [Alternative 6, 7] | |
|---|-------------------------------|---------------------------------------------|
| 8 | Repeat 6 & 7 | |
| 9 | Actor clicks "Create" button. | The system stores the test in the database. |

Alternative Scenario:

Alternative 1:

| Step | Actor Action | System Response |
|------|---------------------------------------------------------------|----------------------------------------------------------------------|
| 1 | Actor clicks "Add answer". | The system adds a new textbox for the answer to the chosen question. |
| 2 | Actor fills in the new textbox for the answer. [Exception 7] | |

Alternative 2:

| Step | Actor Action | System Response |
|------|---------------------------------------------|---------------------------------------------|
| 1 | Actor clicks "Remove answer". [Exception 8] | The system removes the chosen answer field. |

| No | Cause | System Response |
|----|----------------------------------------------------|----------------------------------------------------------------------------------|
| 1 | Personality test name is blank. | The system informs "Please fill in the personality test's name field" |
| 2 | Personality test already exists. | The system informs "This type of personality test has created before" |
| 3 | Personality type's name is blank. | The system informs "Please fill in personality type's name" |
| 4 | Personality type's general description is blank. | The system informs "Please fill in the personality type's general description" |
| 5 | Personality type's suggested occupations is blank. | The system informs "Please fill in the Personality type's suggested occupations" |
| 6 | Question is blank. | The system informs "Please fill in the |

| | | question field" |
|---|---------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 7 | Answer is blank. | The system informs "Please fill in the answer field or remove it if needed" |
| 8 | The number of available answer is equal to the number of required answer. | The system informs "You reach the minimum number of answer." |

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.25. Edit personality test

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|-----------------------|---------------------|-----|-------|
| Use-case No. | UC-25 | Use-case Version | 2 | <1.0> |
| Use-case Name | Edit personality test | | | |
| Author | LyNTK | | | |
| Date | 11/10/2022 | Priority | Low | |

Actor:

Psychologist

Summary:

This feature allows actor to edit personality test's questions & results.

Triggers

The actor wants to edit the personality test.

Preconditions:

- PRE-1. Actor logs in to the BrainTech website as a psychologist role.
- PRE-2. The actor at least has B.A. or B.S. in psychology.

Post Conditions:

- POST-1. Success: The system saves a new version of the personality test & shows the success message.
- POST-2. Fail: The system shows the error message.

| Step | Actor Action | System Response |
|------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | In "View personality test" page, actor chooses the personality test. | The system shows 2 options: - Edit personality test - View feedback |
| 2 | Actor clicks "Edit" button. | The system shows a personality test's form including fields: - Personality test's name: text input, required, max limit length is 200 - Personality test's description: text input, max limit length is 500 - Picture: image input, less than 10MB |
| 3 | Actor changes fields in the form. [Exception 1] | |
| 4 | Actor clicks "Add result". | The system shows a personality result's form including fields: - Personality type's name: text input, required, max limit length 200 - Picture: image input, less than 10MB - Personality type's general description: text input, required, minimum limit length 500 - Personality type's strength & weakness: text input - Personality type's suggested occupations: multiple choice select, required, options: software engineering, analysts, artist, etc |
| 5 | Actor changes fields in the form. [Exception 2, 3, 4] | |
| 6 | Repeat 3 & 4 | |
| 7 | Actor clicks "Add question" button. | The system shows a personality test's question form including fields: - Question: text input, required - Number of answers that the question requires: number input, required, min value is 1, default is 1 - 4 default answer forms including: + Answer: text input, required, max length 500 |

| | | + Related result: select, required, option: personality type's names |
|----|-----------------------------------------------------------------------|----------------------------------------------------------------------|
| 8 | Actor changes fields in the form. [Exception 2, 3] [Alternative 1, 2] | |
| 9 | Repeat 6 & 7 | |
| 10 | Actor clicks "Submit" button. | The system stores the test in the database. |

Alternative Scenario:

Alternative 1:

| Step | Actor Action | System Response |
|------|---------------------------------------------------------------|----------------------------------------------------------------------|
| 1 | Actor clicks "Add answer". | The system adds a new textbox for the answer to the chosen question. |
| 2 | Actor fills in the new textbox for the answer. [Exception 6] | |

Alternative 2:

| Step | Actor Action | System Response |
|------|------------------------------------------------|---------------------------------------------|
| 1 | Actor clicks "Remove answer". [Exception 7] | The system removes the chosen answer field. |

| No | Cause | System Response |
|----|----------------------------------------------------|----------------------------------------------------------------------------------|
| 1 | Personality test name is blank. | The system informs "Please fill in the personality test's name field" |
| 2 | Personality type's name is blank. | The system informs "Please fill in personality type's name" |
| 3 | Personality type's general description is blank. | The system informs "Please fill in the personality type's general description" |
| 4 | Personality type's suggested occupations is blank. | The system informs "Please fill in the Personality type's suggested occupations" |

| 5 | Question is blank. | The system informs "Please fill in the question field" |
|---|---------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 6 | Answer is blank. | The system informs "Please fill in the answer field or remove it if needed" |
| 7 | The number of available answer is equal to the number of required answer. | The system informs "You reach the minimum number of answer." |

<List the relationships that use case relates to>

Business Rules:

<Any concern about the business>

3.2.26. Suggest School

| USE CASE-n SPECIFICATION | | | | |
|--------------------------|----------------|---------------------|-----|-------|
| Use-case No. | UC-26 | Use-case Version | | <1.0> |
| Use-case Name | Suggest School | | | |
| Author | ThanhLQ | | | |
| Date | 15/10/2022 | Priority | Nor | mal |

Actor:

System Handler

Summary:

This feature allows the authenticated user view all suitable of school depend on test result they do.

Triggers

The actor want to give more the suitable school and show up to the authenticated user.

Preconditions: N/A

Post Conditions:

- POST-1. Success: System calculate send back some suit school and show up to user
- POST-2. Fail: Do nothings

Main Success Scenario:

| Step | Actor Action | System Response |
|------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1 | This function is automatically performed on the server every time user has done personal test | The system runs in background the algorithm to find out all suitable school for authenticated user |

Alternative Scenario: N/A

Exceptions: N/A **Relationships:**

<List the relationships that use case relates to>

Business Rules:

- The percent school suit to user is 60% of result test

- Suggest two more top school that have rate less than 60%

- The schools that have the major result guiding is have more priority to show

- If user does not doing test before show nothing

4. NON-FUNCTIONAL REQUIREMENTS

4.1. Usability

- All text, label and message should be uniformly written in English.
- Mobile and Web UI/UX follows Figma/Prototypes to be convenient and easy for use.
- It takes less than an hour to train our user to use the VCCS System.
- Users are not required to have technical knowledge before using.
- Any response must be within 2 seconds or less
- After pressing any button, there're always respond within 1 seconds (loading process, save success,..)

4.2. Reliability

- The availability of the system is over 85%.
- Mean Time Between Failures (MTBF) should be more than 125 hours.
- Mean Time To Repair (MTTR) should be less than 12 hours .
- Precision in the system's output must be 100%.
- Response time for a transaction must be 5 seconds or less
- Capacity for the number of users the system can accommodate is at least 1000 users.
- Resource utilization, such as memory, disk, communications, and so forth must be smoothie and with minimal error.

4.3. Performance

- Response time is equal to or less than 03 seconds for each request.
- Processing time is 03 05 seconds for each frame.
- BrainTech web application can tolerate 10000 users in peak hours

5. Supporting Information

[The supporting information makes the SRS easier to use. It includes:

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Appendices

These may include use-case storyboards or user-interface prototypes. When appendices are included, the SRS should explicitly state whether or not the appendices are to be considered part of the requirements.]