

TUSH-SYSTEM REQUIREMENT

Requirement No:	1	Requirement Name:	Housing Listing Posting
Introduction	<p>The Housing Listing Posting allows landlords to post available rental properties on the TUSH platform.</p> <p>The TUSH system must support this functionality.</p>		
Inputs	<p>Landlord Account information (Name, contact details, and verification status), Property location (city, street, zip code,), Property Type (Apartment, house, shared accommodation), Property Size (Square footage and the number of rooms, (bedrooms, bathrooms), Amount (rent, utilities, maintenance fees), Lease Terms (month-to-month, short-term), Availability, Amenities(parking, laundry, internet) and whether utilities are included), Images and Videos.</p>		
Description	<p>Landlord shall be able to post houses for listing to TUSH.</p> <p>A house listing posting shall be allowed if and only if:</p> <ul style="list-style-type: none"> -The system must prompt landlords to complete verification -The system must provide a user-friendly form where landlords can input property information -The system must allow landlords to upload multiple images -The system must allow the integration of a map -The system must allow landlords to edit and update listing -The system must validate all inputs to ensure they are correctly formatted -The system must allow landlords to deactivate or repost listings. 		
Outputs	<p>Public Property Listing, Preview Function, Listing dashboard and Notifications.</p>		

Requirement No:	2	Requirement Name:	Landlord Background Verification
Introduction	The Landlord Verification feature is designed to authenticate and verify landlords who wish to register and list properties on the TUSH system.		
Inputs	Personal details (Full name, contact information, and date of birth), Government Issued ID (scan copy of driver's license, passport), Proof of ownership (property deeds, utility bills), Bank details (optional for verification), Address and Housing registration.		
Description	<p>Landlord Background must be verified for making listing to TUSH. A Landlord verification shall be allowed if and only if:</p> <ul style="list-style-type: none"> -The system must allow that landlords personal details can be authenticated -The system must allow that landlords issued government ID can be verified -The system must validate all proof of ownership, bank details and housing registration provided by landlords. -The system must allow that all copies of landlords required official documents can be uploaded. 		
Outputs	Verification Status update, Verified Landlord Badge and Notification.		

Requirement No:	3	Requirement Name:	Landlord Leasing Request and Application View
Introduction	The Leasing Request and Application View enables landlords to view student applications and manage leasing requests for their listed properties on TUSH.		
Inputs	Student name, contact info, student ID, move-in date, rental duration, proof of income, guarantor information, Rental history (optional). Property Listing information (rent amount, availability date, utilities).		
Description	<p>Landlord Leasing Request and Application Review must be completed for making listing application to TUSH.</p> <p>A Landlord Leasing Request and Application Review shall be allowed if and only if:</p> <ul style="list-style-type: none"> -The system must allow landlords to authenticated student details -The system must ensure the property listing information is always available -The system must allow students to submit application - The system must allow landlords to view all applications submitted -The system must allow landlords to view a detailed profile of each applicant. -The system must allow landlords to filter and search student applications. 		
Outputs	Application List, Application Status Updates, Applicant profiles, Lease agreement, Feedback to applicants.		

Requirement No:	4	Requirement Name:	Landlord Individual Application Review, Approval and Rejection
Introduction	The Individual Application Review, Approval and Rejection allows landlords to review and approve or reject individual student applications for their properties on TUSH		
Inputs	Student application details (full name, contact info, Towson University student ID, proof of income, bank statements, guarantor details, references, rental history), Landlord evaluation criteria (Student ID), and Application status inputs (approval, rejection, or requests for additional information).		
Description	<p>Landlord Individual Application Review, Approval and Rejection must be completed for making listing application to TUSH.</p> <p>A Landlord Individual Application Review, Approval and Rejection shall be allowed if and only if:</p> <ul style="list-style-type: none"> -The system must provide landlords with the ability to view detailed application for each applicant -The system must provide a review dashboard allowing landlords to review applications for each applicant -The system must allow landlord to compare the student's application against criteria. - The system must allow landlords to update the status of each application -The system must allow landlords to request for additional information from each applicant. -The system must allow landlords to filter each student applications. -The system must allow landlords to Accept or Reject application. 		
Outputs	Application Review Dashboard, Application Status Updates, Request for Additional Information and Lease Agreement Generation and Notification.		

Requirement No:	5	Requirement Name:	Student Housing Search
Introduction	The Student Housing Search allows students to search for available rental properties listed by landlords on the TUSH platform.		
Inputs	Location, Property Type, Amenities, Price Range, Number of Bedrooms/Bathrooms, Move-in-Date, Lease Duration and Distance from School.		
Description	<p>Student Housing Search must be completed for making listing application to TUSH.</p> <p>A Student Housing search shall be allowed if and only if:</p> <ul style="list-style-type: none"> -The system must allow students to perform basic search for available properties by entering keywords or selecting a location -The system must allow students to perform an advanced search by applying multiple filters, such as price range, number of rooms etc. -The system must allow students to sort search results by criteria such as price - The system must allow students to view available properties on a map, with pins indicating the locations of properties -The system should allow students to save searches based on their filter preferences -The system should allow students to mark properties as favorites for easy access later -The system should ensure AI/ML is used to enhance a good search experience 		
Outputs	Search Results, Detailed Property View, Favorites List, Map View, Notification and Contact Form.		

Requirement No:	6	Requirement Name:	Roommate Matching System
Introduction	The Roommate Matching System will allow for students to match with other students based upon lifestyle information provided to TUSH.		
Inputs	Student Account Information, like name, age, lifestyle preferences i.e. optionally, eating/sleeping/working/social habits, if the student already has property leased		
Description	<p>The Roommate Matching System will allow students to be able to match up with one another in order to become roommates in a property that they will be leasing.</p> <p>A Roommate Matching Search and Connection should be allowed if and only if:</p> <ul style="list-style-type: none"> -The system must allow for students to be able to apply multiple filters to search for specific roommates based upon filters like age, name, certain lifestyle habits -The system should allow for saving filter preferences for ease of search -The system should give recommendations based upon saved filters -The system should provide a search history -The system must allow for students to view each other's profiles -The system should allow for students to contact one another, i.e. by allowing for access to their contact information -The system should allow students to add each other and approve the add to become roommates - The system should ensure AI/ML is used to support roommate matching based on students' preference 		
Outputs	Added Roommates, Favorited Filters, Search Results, Possible Roommate Information, Contact Information		

Requirement No:	7	Requirement Name:	Students accessing Towson University resources
Introduction	A verified user should be able to access Towson University Resources through the system, being able to check things like dining information, fitness information, shuttle information, parking information.		
Inputs	System Account Information, Verification via Towson Login, searching for Towson Resources		
Description	<p>A user verified Towson University student can search for basic Towson resources that would be useful for planning living conditions.</p> <p>Towson University Resources can be accessed by the application if and only if:</p> <ul style="list-style-type: none"> -The user is logged in and verified as a Towson University Student -The system must provide basic information based on the Towson University resources the user is accessing -The system must provide information only relevant to possible decisions for living conditions -The system should allow for ease of returning to their Dashboard after accessing resources 		
Outputs	Dining locations and costs, Shuttle times and pickup locations, parking pass times and costs, fitness information, library information, redirects to Towson University's official site		

Requirement No:	8	Requirement Name:	Students accessing local public transport information
Introduction	A verified student should be able to check local transport information, for example, like the MTA. The student can see pickup times, routes, pickup and drop off locations, delays.		
Inputs	Location, Public Transport Name, Type of Public Transport, Account Information, Towson University Verification		
Description	<p>A verified Towson University Student can search for local public transport information.</p> <p>The Local Public Transport Information can be accessed if and only if:</p> <ul style="list-style-type: none"> -The student is logged in and verified to be a Towson University Student - The system must allow for the user to apply filters based upon the name of the public transport, the type of public transport, the times they pick up and drop off, where each public transport picks up and drops off -The system must allow for redirects to available websites for the public transport -The system should make recommendations based upon affiliations with Towson University 		
Outputs	Delay Information, Pickup Times and locations, routes, public transport names and types		

Requirement No:	9	Requirement Name:	Students Carpool listing
Introduction	Students should be able to create a carpool only accessible by those who are logged in to the system, providing information such as departure times, arrival times, destination, and meetup location. Students can then search for these and possibly flag that they will be joining the carpool.		
Inputs	Student Account Information, Towson University Verification, Departure/Arrival Times, Destination, Meetup Location, Flagging to Join, amount of people allowed in the carpool		
Description	<p>A verified student can create a carpool, where only other verified students can access its information and join it.</p> <p>The Student Carpool Listing can be created or searched for if and only if:</p> <ul style="list-style-type: none"> -The student creating the carpool is a verified Towson University Student -The students viewing the carpool are verified Towson University Students -The system must allow for searches based upon, departure/arrival times, destination/meetup locations, how many people can join the carpool -The system must allow for students to join the carpool -The system must allow for the student who created the carpool to deny/remove students from the carpool -The system should make a recommendation when a roommate is attending a carpool -The system should allow for a student to delete a carpool they created 		
Outputs	Accepted and Denials for Carpool, Added/Removal from Carpool, Generation of Carpool, Deletion/creation of a carpool, recommendations for carpool, carpool searches		