

# OSU CSE 3232

## SRS Workbook

**Project:** Student Housing Redevelopment

**Semester:** Spring

**Section:** M/W 6:00-7:20 p.m.

**Instructor:** Professor Bentley

**Team:** AGILE BUCKEYES

**Members:** Koury Harmon

Alex Wisser

Matthew Dannery

Maverick Walker

Haileigh Stanton

Aayush Amin

**Note:** This EXAMPLE SRS contains content from one or more student team SRS's. It has been edited to make it suitable for use as an example. It is an example of a good SRS with respect to format and content, but it is not "perfect". In some cases, only a small set of example artifacts are shown (e.g., just few User Stories) - your project may require more. Follow the guidance of your instructor regarding expectations on format, content and quality. (Tom Rihari)

, Version

Version	Authors	Date	Description of Changes	Status
V1	Koury Harmon	1/27/25	Updated Cover and Overview - Koury: Mission Statement - Aayush: Dependencies - Matthew: Problem Analysis - Alex: Goals, Solution Analysis - Maverick: Scope  Haileigh: Domain Analysis, Solution Analysis	Draft
V2	Haileigh Stanton	2/3/25	Persona Page, First One - Haileigh: Student Persona - Koury: Staff and Parents Personas lifstyles - Aavush: Staff and Parents persona	Draft
V3	Alex Wisser	2/5/25	Modified Overview to fit App Solution	Draft
V4	Maverick Walker	2/6/25	Modified Scope and Out of Scope Perspective	Draft
V5	Alex Wisser	2/11/25	Updated Trace to Goals and made sure our Personas, Maps, and Overview are all consistent	Draft
V6	Koury Harmon	2/19/25	Finished business rules/process/user story/prototype for roommate matching process (BP001)	Draft
V7	Haileigh Stanton	2/19/25	Completed business rules/process/user story/ prototype for improving parent satisfaction with newsletter (BP003)	Draft
V8	Aayush AMin	2/19/25	Completed business rules/process/user story/ prototype for increasing housing maintenance (BP004)	Draft
V9	Alex Wisser	2/18/25	Completed business rules/process/user story/ prototype for improving sanitation	Draft
V10	Matthew Dannery	2/19/25	Completed business rules/process/user story/ prototype for user housing selection	Draft
V11	Maverick Walker	2/20/25	Completed business rules/process/user story/ prototype for housing inspection (BP005)	Draft
V12	Koury Harmon	3/21/25	Completed EV005	Draft
V13	Koury Harmon	3/24/25	Completed UC003 and added corresponding information to the context and use case diagrams	Draft
V14	Aayush Amin	3/25/25	Completed UC006 and added corresponding information to the context and use case diagrams	Draft
V15	Maverick Walker	3/25/25	Completed UC002 and added corresponding information to the context and use case diagrams	Draft
V16	Haileigh Stanton	4/1/25	Completed FO001, NFR004, NFR005, NFR006, CL002and OID002	Draft
V17	Alex Wisser	4/2/25	Completed functional objectives, non-functional requirements, added a class, OID, and state diagram	Draft
V18	Aayush Amin	4/2/25	Completed functional objectives, updated classes, added OID.	Draft
V19	Maverick Walker	4/2/25	Completed Functional Objectives, StateChart, & added an OID.	Draft
V20	Alex Wisser	4/9/25	Modified OID, Classes, and Tracing	Draft
V21	Haileigh Stanton	4/9/25	Modified OID, Classes, and Tracing	Draft

## , Overview

### Overview

Author Notes:	<input type="text" value="My notes..."/>	Score:	<input type="text"/>
Review Notes:	<input type="text" value="Example review notes..."/>		
<b>Vision and Mission</b>	(Describe the vision and mission of your "initiative" or "organization") We envision a college living experience where students don't have to worry about basic housing necessities and maintenance. Our mission is to provide enough comfortable, safe, modern, and practical housing for the growing population of Ohio State students.		<b>Review Notes</b>
<b>Domain Analysis</b>	(Describe the characteristics of the domain. What does it include and not include (people, activities, locations, etc.)? Provide references and statistics on size, etc.)  At The Ohio State University, there are many options for student housing and a lot of different players involved in making it happen every year. There is a wide diversity of housing options available at Ohio State to accommodate the large student body. Record breaking numbers this past fall of 9,530 first-year students, compared to the average of 7,980 first-year students seen in the prior year, demonstrates an increase of 16% or 1,550 students, a trend expected to continue. The different housing options for students make up just one of the characteristics in the student housing domain, there are dormitories, suites, specialized communities, and off-campus apartments. At Ohio State, there are thousands of students moving on and around campus every year, it is important to consider scalability of the infrastructure in the student housing market and ensuring it has the capacity to meet the community's demand. Another major characteristic of student housing is their affordability, college students likely are relying on their parents, or some sort of financial aid to pay for their housing. The different sources of funding mean different budgets for each student, and there must be different tiers of pricing to accommodate their varying circumstances. The next characteristic is more optional to the students in on-campus housing and serves as a resource to the student body staying in these housing options. Ohio State has cohorts of campus employees focus on creating an active and inclusive environment for the students living on campus, like MUNDO, a student group offering events, volunteer opportunities and educational trips centered around community-service and wellness, Community Council, which offers a place for the community to be heard, a place to meet people, a creative source for event planning and the Residence Hall Advisory Council (RHAC), which acts as the governing organization for all on-campus students and community councils, and this is just to name a few. Sources: - <a href="https://www.thelantern.com/2024/07/university-parents-voice-housing-concerns-as-the-2024-25-academic-year-approaches/">https://www.thelantern.com/2024/07/university-parents-voice-housing-concerns-as-the-2024-25-academic-year-approaches/</a> <a href="https://sem.osu.edu/enrollment-report.pdf">https://sem.osu.edu/enrollment-report.pdf</a> <a href="https://housing.osu.edu/roomsearch/">https://housing.osu.edu/roomsearch/</a>		<b>Review Notes</b>
<b>Problem Analysis</b>	(Describe one or more problems/opportunities within the domain. What are the root causes of these problems? Provide references and statistics on the impacts of the problem(s), etc.)  Assuming trends continue, Ohio State stands to admit a continuously increasing class of new students while existing housing resources are increasingly strained and aging. 2023 saw a 19.4% increase in the size of the admitted class over the previous year. Parents and students have also reached out to the University concerned with the current state of housing: many students are packed into rooms with as many as 15 roommates in the tower. Residence halls such as Lawrence tower have recently shut down due to concerns over mold in the residence hall. The majority of residence halls were built over 50 years ago, and record student admissions continues to put a strain on OSU's decaying housing offerings. Ohio State has offered leeway for second year students to end their housing contract and find off campus housing as a temporary solution. This is not tenable in the long term as many students may wish to stay on campus their second year, and housing is a major revenue generator for the university.		<b>Review Notes</b>
<b>Solution Analysis</b>	(Describe the existing solutions to the problems identified above. What are their strengths, weaknesses, costs, etc.? Why are the existing solutions not satisfactory? What new solutions might be possible?)  The majority of residence halls on campus were built over 50 years ago, between 1940s and 1960s. Modern building capabilities have drastically changed since that time, and more capacity can be created in outdated models. A new solution to these problems can be an app that utilizes an improved roommate matching system to help ease overcrowded dorm rooms using an algorithm that matches students to dorms based on similarity. The students' are able to deny their match up to 3 times, and this requires no additional effort from the university as it is reliant on AI and the individual student's effort. This gives the student control on who they live with, which makes them more likely to be satisfied with their living conditions, as they feel they had a say in it. There can also be live room availability and waitlist management. This can allow students even more control on where they want to room and make informed decision on where they could be placed. The university can adjust their student acceptance numbers based on the availability numbers within the apps. Parents can also have supervisory access to their students' housing conditions with real time updates. The app can have a housing feedback area where students can easily report issues with maintenance, sanitation, and any other concerns to the Housing Department within the app, would receive the request on their end and send someone out. The app will require annual inspections and checklists for the residence halls, that maintenance and Housing needs to approve each summer. They would post whether the residence hall is in satisfactory condition, needs minor work, or needs major work, to avoid letting		<b>Review Notes</b>
<b>Scope</b>	(List one or more of the problems to be explicitly In Scope for this initiative. List other areas that are explicitly Out of Scope.)  One problem in scope for this initiative is the problem of cleanliness and other maintenance much needed in dorms. The app will allow for better tracking of this and better communication between students and university to speed up the process of fixing these issues. An area out of scope is building new dorms. Build new clean and updated dorms would be very helpful but this is out of scope when discuss an app. Another potential initiative worth considering is enhancing the affordability of student housing through financial aid or subsidies. While reducing housing costs would greatly benefit students, it is not in line with the main purpose of an app focused on maintenance and communication.		<b>Review Notes</b> *
<b>Dependencies</b>	(List other initiatives (if any) that need to make use of the results of your initiative, and/or other initiatives whose capabilities your initiative needs to use.)  The OSU organizations such as student housing, financial aid, mental health, and admissions.		<b>Review Notes</b> *
<b>Goals</b>	(List the main goals of your initiative. These should be "business/domain focused", not technical requirements. (ALT-ENTER to add lines.))  Goal1: Improved Housing Allocation Efficiency Goal2: Enhanced Student and Parent Satisfaction Goal3: Improved Maintenance/Service Request Process		<b>Review Notes</b> *

, Impact Map

Impact Map							
Author Notes: <input type="text" value="My notes..."/> <span style="float: right;">Score:</span>							
Review Notes: <input type="text" value="Example review notes..."/>							
Outcome ID	Outcome	Actors - The Who	Impact - Behavior Change	Deliverables - The What	Trace to Goals	Author Notes	Review Notes
IM001	Increase student roommate satisfaction by 50%	OSU Student	Increase the ability for OSU Student to better select and match with potential roommates before moving in	Provide roommate selection algorithm and matching within app	Enhanced Student and Parent Satisfaction		
IM002	Improve student housing selection satisfaction by 25%	OSU Student	OSU Student is better informed on available housing options and can manage their waitlist and selections depending on options	OSU Student is shown room availability and waitlist management to select housing through the app	Improved Housing Allocation Efficiency		
IM003	Improve parent satisfaction by 25%	Parents, Housing staff	Better inform parents about the conditons of their childrens living situations, ie if there are notable conditions of the residence hall, a fire, break in, etc	Provide automated alerts relating to housing conditons in real time through app which is managed by the housing staff	Enhanced Student and Parent Satisfaction		
IM004	Increase rate of housing repairs and maintenance by 30%	Housing Staff	With maintenance reporting directly from students, housing will be better aware of the problems at residence halls	Provide in app maintenance reports so OSU Student can report maintinece problems directly	Improved Maintenence/Service Request Process		
IM005	Ensure all housing is 98% damage-free by the end of each academic year	Housing Staff	Avoid letting residence halls fall into disrepair and maintain better maintinence	Annual housing inspections and maintincence checklists	Improved Maintenence/Service Request Process		
IM006	Increase sanitation satisfaction in residence halls by 50%	Housing Staff	App will notify employees with santitaion in problems in residence halls, such as overflowing trash and dirty communal bathrooms	Housing feedback will allow OSU Student to directly report sanitation issues to campus maintaince employees	Improved Maintenence/Service Request Process		

Business Processes										
Author Notes: <input type="text" value="My notes..."/> <span style="float: right;">Score:</span>										
Review Notes: <input type="text" value="Example review notes..."/> <span style="float: right;">Score:</span>										
BP ID	Name	Actors	Narrative	Frequency	Traced Impact Map	Traced Business Rules	Embedded Diagram		Author Notes	Review Notes
BP001	Select a compatible roommate	OSU Student	The student will input their own personality traits and preferences for their ideal roommate. The app will attempt to match them with a roommate that fits their preferences. If the app cannot find a match, the student can scroll through other people looking for a roommate and chat with them. If the algorithm can find someone, the student can chat with their potential roommate match. The student can also opt to be assigned a random roommate.	3 million/year	IM001	BR006, BR007, BR008	#VALUE!			
BP002	Housing Selection & Waitlist	OSU Student	The student will be able to view available housing through the app. The app will show them a filtered list of which residence halls have open availability and which the student would need to join a waitlist for. If the student wishes to be waitlisted for housing they must also choose an available option as a backup. If the student wishes to change their housing selection, they may do so through the app.	50,000/year	IM002	BR001, BR002	<pre> graph LR     Start((Student views housing selection)) --&gt; ViewAvailableHousing[View available housing]     ViewAvailableHousing --&gt; SelectRooming[Select Rooming]     SelectRooming --&gt; SelectAvailableHousing[Select available housing]     SelectAvailableHousing --&gt; SelectWaitlistedHousing[Select waitlisted housing]     SelectAvailableHousing --&gt; Decision{Has the user selected an available rooming option?}     SelectWaitlistedHousing --&gt; Decision     Decision -- No --&gt; ReturnToSelection[Return to selection]     Decision -- Yes --&gt; SaveAndSubmit[Save and submit selected housing]     SaveAndSubmit --&gt; UserAgreement{Does the user want to agree with the selected?}     UserAgreement -- No --&gt; SelectionCompleted((Selection completed))     UserAgreement -- Yes --&gt; SelectionCompleted   </pre>			
BP003	Keep Parents Informed	Parents, Housing Staff	The housing staff will review all on-campus residence hall events and incidences as they occur and report them to the OSU student life parent newsletter. The parent voluntarily signs up at student orientation if they want to receive updates on their child's living conditions. Parents would sign in with student's OSU email, to link to their account and see relevant news, but parents create their own password. Alerts are automated and sent on a set schedule upon being approved by housing staff.	200/year	IM003	BR004, BR011, BR012	#VALUE!			
BP004	Increase rate of housing repairs and maintenance	Housing Staff	The Student will submit a repair/maintenance request with a urgency and description of the request. The app will filter the request into a high or low urgency category. High urgency request will be handled immediately by staff and low urgency will be added to a queue awaiting an available employee. At the end of the job the student will submit a rating of the repair to the app and feedback will be compiled by the app and reported to increase student satisfaction per job.	150,000/year	IM004	BR003	<pre> graph TD     Start((Student submits a repair/maintenance request with a high or low urgency)) --&gt; DetermineUrgency{Determine Urgency}     DetermineUrgency -- High Urgency --&gt; AssignContractor[Assign contractor to it immediately]     AssignContractor --&gt; GetCustomerFeedbackRating[Get customer feedback rating]     GetCustomerFeedbackRating --&gt; CompleteRequest[Complete request]     DetermineUrgency -- Low Urgency --&gt; AddToQueue[Add to a queue and wait for available employee]     AddToQueue --&gt; ContractorAvailable{Contractor available?}     ContractorAvailable -- No --&gt; NoContractorAvailable((No contractor available))     ContractorAvailable -- Yes --&gt; AssignContractor     NoContractorAvailable --&gt; CompleteRequest   </pre>			
BP005	Repair request prioritization and feedback system	Housing Staff	The Housing Staff can conduct annual inspections of residence halls using standardized maintenance checklists to identify and address any deterioration or damage. When issues are identified, they can be logged through an improved maintenance/service request process for a quick resolution.	Constant	IM005	BR009, BR010	<pre> graph TD     Start((Schedule Annual Inspection)) --&gt; ConductInspection[Conduct Inspection]     ConductInspection --&gt; IssuesFound{Issues Found?}     IssuesFound -- No --&gt; CompleteMaintenance[Complete Maintenance]     CompleteMaintenance --&gt; DocumentInspection[Document Inspection]     DocumentInspection --&gt; TargetMet{98% Target Met?}     TargetMet -- Yes --&gt; PlanIntegrated[Plan Integrated]     TargetMet -- No --&gt; DevelopImprovementPlan[Develop Improvement Plan]   </pre>			
BP006	Respond to Sanitation alert	Housing Staff	A Student will submit a Sanitation alert with info and urgency to the maintence team, the team will prioritize it if it is indeed urgent. If an details are unclear they will ask for more details. After getting the details correct and confirmed a team will be sent out to clean the issue. When the issue is cleaned there will be a check to confirm it is cleaned and the issue has been resolved. The team will then notify the student that the issue was resolved and will close the request.	150,000/year	IM006	BR005	#VALUE!			

Personas									
<p>Create a Persona for every user/actor/stakeholder involved in your solution.</p> <p><b>Author Notes:</b> My notes...</p> <p><b>Review Notes:</b> Example review notes... <span style="float: right;">Score:</span></p>									
User/Actor	Picture	Demographics		Goals/Needs	Pain Points/Frustrations	Traced to Business Process	Traced Classes	Author Notes	Review Notes
OSU Student	#VALUE!	Age	18	Choice in where her dorm is on campus, OSU is large and as a new student, rooming near her classes is a must to avoid getting lost.	Her budget limits her options and the quality available.	BP002	CLO05		
Myers-Briggs Type		Occupation	First-Year Student	Has a say in assigned roommate, someone who cleans up after themselves, not leaving all the responsibility on her.	Students like her have almost no power in where and how they live in the 2-4 years of living on campus.	BP005	CLO05		
ENTP		Income	< \$20,000	Have a voice and limited power as a student to seek university intervention when residence hall quality falls into disrepair.	Unfamiliar with university and high campus population. Hails from small town in PA so environments like this makes her desperate for own space.	BP003	CLO05		
Number of Users		Location	Columbus, Ohio	Reassurance her mom has access to her living conditions, further promoting her power as a student.					
100		Lifestyle	Student activist, firm in beliefs, speaks out in support of students' rights	Clean dorm without excessive spending. Relies on parent's money who are not rich.					
Frequency of Use			Prioritizes quality over quantity.						
One-twice use/day			From Pennsylvania, unfamiliar with						
User/Actor	Picture	Demographics		Goals/Needs	Pain Points/Frustrations	Traced to Business Process	Traced Classes	Author Notes	Review Notes
Housing Staff	#VALUE!	Age	22	Ensure students' safety and well-being while living in residence halls.	Overwhelmed with maintenance requests due to aging buildings.	BP002, BP006	CLO05		
Myers-Briggs Type		Occupation	Resident Advisor	Streamline communication with students about rooming issues, maintenance requests, and campus events.	Students often complain about dorm quality, but there is no structured way to track feedback effectively.	BP005, BP006	CLO05		
ESFJ		Income	\$10,000	Improve transparency with students and parents regarding housing concerns.	Lack of sufficient resources and staff to address housing issues promptly.	BP003	CLO05		
Number of Users		Location	Columbus, Ohio	Reduce the number of housing-related complaints by enhancing organization and response times.	System for tracking maintenance and housing complaints is outdated or inefficient.	BP006			
100+		Lifestyle	Wants to do their job efficiently and effectively						
Frequency of Use			Interacts with residents on the daily						
Daily									
User/Actor	Picture	Demographics		Goals/Needs	Pain Points/Frustrations	Traced to Business Process	Traced Classes	Author Notes	Review Notes
Parent	#VALUE!	Age	40-55	Ensure their child lives in a safe and clean dorm environment.	Limited ability to monitor their child's housing conditions remotely.	BP002	CLO05		
Myers-Briggs Type		Occupation	Varies	Ability to communicate with residence hall staff when issues arise.	Concerned about their child's safety in an unfamiliar, large university.	BP005	CLO05		
ISFJ, ESTJ		Income	\$50,000+	Concerned about their child's safety in an unfamiliar, large university setting.	Lack of transparency from the university regarding dorm conditions.	BP003	CLO05		
Number of Users		Location	Varies	Ensure their child is in a dorm that fosters a positive academic and social experience.	High costs of housing without justification for outdated dorms.				
1000+		Lifestyle	Talks to their child on the phone daily						
Frequency of Use			Works a 9-5 job everyday						
Weekly to Monthly			Pays attention to news/happenings around their child's campus						

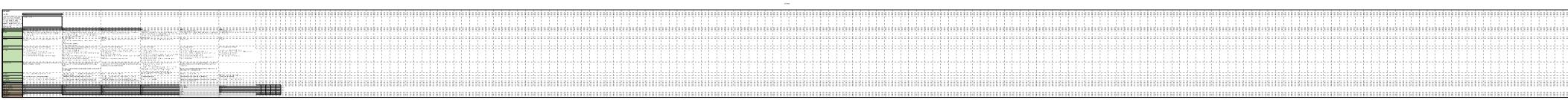
## , Business Rules

Business Rules					
Author Notes: My notes...			Score:		
Review Notes: Example review notes...					
BR ID	Name	Narrative	Categories or Contexts	Author Notes	Review Notes
BR001	Housing Selection	All users must register for at least one available housing option in case they do not make a waitlist.	Housing Registration		
BR002	Housing Selection	The user must be able to edit their requested housing assignments.	Housing Registration		
BR003	Efficient repair/maintence	All high urgency request must be completed same day and low urgency must be completed within 2 buisness days of request.	Housing Maintenance		
BR004	Parent Newsletter Review	Housing staff reviews generated newsletter before publish, checking grammar, content quality, and legal compliance.	Newsletter Approval and Compliance		
BR005	Efficient Sanitation cleanup	If the sanitation request is high urgency it will be place at the top of the request queue and will be completed within 12 hours of the request. Normal requests will be places at the end of the queue and completed within 2 business days of request.	Housing Sanitation		
BR006	Roommate Selection	Students must choose to select their own roommate or be put with a random roommate.	Roommate Matching		
BR007	Roommate Preference Matching	Students must have 45% similar preferences in order to match to each other.	Roommate Matching		
BR008	Roomate Matching Confirmation	Students must mutually confirm each other to match with each other and to.he.achieved.and.validated.through.thorough.documentation.	Roommate Matching		
BR009	Housing Inspection	Annual housing inspections are essential for student facilities to guarantee adherence to safety standards, building codes, and regulations. These inspections act as a proactive safeguard against potential issues, ensuring a secure living environment for students.	Housing Maintenance		
BR010	Housing Inspection	It is essential that all inspection findings are meticulously documented. This process requires that documentation be completed following either the conclusion of maintenance or the identification of any issues. The target metric of 98% indicates that there are precise compliance standards to.he.achieved.and.validated.through.thorough.documentation.	Housing Maintenance		
BR011	Parent Newsletter Signup	Parents can only access newsletter from the student portal with student's buckeyemail and a created password. Parents will be notified at orientation how to access and can only do so if their child is a first or second.year.student.at.OSU..	Newsletter Access Control		
BR012	Parent Feedback Response Policy	Housing Staff can respond to any inquiries submitted by parents but they must do so within 3 business days of receiving the feedback	Response Time		

User Stories									
								Author Notes:	My notes...
								Score:	
US ID	As A [User Role]	I Want To [Goal]	So That [Benefit]	Priority	Size	Traced Impact Map	Traced Business Rules	Author Notes	Review Notes
US001	OSU Student	Modify my selections for available and waitlisted housing.	I can modify my housing assignment so that it best suits my needs.	3	L	IM002	BR002		
US002	OSU Student	Be considered for available and waitlisted housing.	I can receive the housing assignment that best suits my needs	3	M	IM002	BR001		
US003	Parent	Create and access my parent account with ease to stay updated on my child's campus life.	I can stay informed about important events and updates related to my child's campus life.	3	S	IM003	BR012		
US004	Housing Staff	Quickly address any repair/maintenance request and track their progress.	Students remain satisfied and facilities are kept in good condition.	2	L	IM004	BR004		
US005	Housing Staff	Conduct annual dorm inspections using a standardized list	This will identify and address any damage and deterioration before it becomes a major problem in the dorms.	3	L	IM005, IM006	BR003		
US006	Housing Staff	Check the newsletter for legal compliance before sending out to parents.	We avoid sharing restricted or inappropriate information.	2	M	IM003	BR005		
US007	OSU Student	Live in a clean dorm	I can stay healthy and safe from germs.	3	L	IM006	BR006		
US008	Housing Staff	be able to provide fast dorm sanitation	Students can enjoy their living environment in dorms that are clean.	2	L	IM006	BR006		
US009	OSU Student	Live with a roommate who is compatible with me	I can have a reduced stress living environment and can come home every day to someone who will likely be friends with me.	2	L	IM001	BR007, BR008, BR009		
US010	Housing Staff	Conduct detailed annual housing inspections to identify safety issues, maintenance needs, and compliance requirements in student residences.	Meticulous record-keeping ensures a safe environment for students and helps us meet our 98% target while protecting against liabilities.	2	L	IM005	BR010, BR011		

## Context Diagram and Event Table

Author Notes:	My notes...							Score:	
Review Notes:	Example review notes...								
Diagram: (If the diagram is large, or there are multiple diagrams, you may link to the diagram(s) or embed them as objects, with icons.)	#VALUE!								
EV ID	Event Summary	Trigger	Source	Activity	Response	Destination	Trace to Use Case Diagram	Author Notes	Review Notes
EV001	Housing staff releases new newsletter article	Approved Housing Newsletter	Housing Staff	System validates stored parent accounts and sends the.article.link.	Email with Article Link	Parent	Release Newsletter		
EV002	OSU student wants to submit a sanitation request	Sanitation request	OSU student	New sanitation request intake	Sanitation request Ticket	Housing Staff	Submit Housing Sanitation Request		
EV003	OSU student wants to enter the roommate matching pool	Personality/roommate preferences	OSU student	Input of either personality traits and preferences, or preference for random roommate	Student personality/roommate preference information added to pool	OSU Student	Input of either personality traits and preferences, or preference for random		
EV004	Housing Staff conducts annual residence hall inspection	Annual Inspection Schedule	Housing Staff	Identification of deterioration or damage in residence halls	Logged Issues	Housing Staff	Annual Residence Inspection		
EV005	Student wants to submit maintenance request	Student reports maintenance issue in dorm	OSU Student	Maintenance request information intake	Request prioritized in the feedback system	Housing Staff	Submit Housing Maintenance Request		
EV006	Student wants to register for housing waitlist	Student submits housing selection	Student	Student updated housing selection is updated	Housing priority updated	Housing Staff	Submit Housing Assignment Request		



, Use Case Diagrams

## Use Case Diagrams

Author Notes:

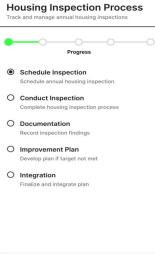
Score:

Review Notes:

Diagram:

(If the diagram is large, or there are multiple diagrams, you may link to the diagram(s) or embed them as objects, with icons.)

#VALUE!

Prototypes						
Author Notes:			Score:			
Review Notes: Example review notes...						
PR ID	Name	Embedded Image	Traced to BPMN	Author Notes	Review Notes	
PR001	Screen for entering a Sanitation Request	#VALUE!	BP006			
PR002	Screen for housing selection and waitlisting	#VALUE!	BP002			
PR003	Screen for repair/maintenance request	#VALUE!	BP004			
PR004	Roommate Matching Entrance Portal	#VALUE!	BP001			
PR005	Housing Inspection Process Portal	 <b>Housing Inspection Process</b> Track and manage annual housing inspections <ul style="list-style-type: none"> <li>Progress</li> <li><input checked="" type="radio"/> Schedule Inspection</li> <li><input type="radio"/> Conduct Inspection</li> <li><input type="radio"/> Documentation</li> <li><input type="radio"/> Improvement Plan</li> <li><input type="radio"/> Integration</li> </ul> <p>Continue</p>	BP005			
PR 006	Parent Newsletter Blog Page	#VALUE!	BP003			

## , Use Cases X

UCID	Name	Summary	Actors	Input Data	Output Data	Basic Flow	Alternative Flows(s)	Invariants	Pre-conditions	Post-conditions	Extension Points	Priority	Status	Value	Size	Traced Business Rules	Traced Non-Func Reqs	Traced Func Objectives	Traced Events	Traced Olds	Traced Prototypes	Author Notes	Review Notes
UC001	Adopt pet	A potential pet adopter needs to be able to select a pet for adoption, complete the necessary work, and pay the adoption fee.	Pet Adopter	The pet that is being adopted.	Copy of the adoption application and receipt for the adoption fee.	1. The pet adopter opens the app. 2. The system displays pets that are available for adoption. 3. The pet adopter selects the pet they want to adopt. 4. The system gives the user the application form. 5. The pet adopter completes required application. 6. The system approves the application form. 7. The pet adopter pays the adoption fee. 8. The system returns a copy of the application and a receipt for the adoption fee.		Pet adopter is logged into an account.	Adopter has been approved by the shelter.	The pet adopter is given a copy of the adoption paperwork and fee.							BR001, BR002 NFR001, NFR002, F0001, F0002, NFR004, NFR006 F0005, F0006	EVO03, EVO08		PR002, PR003			
UC002	View Available Pets	A potential pet adopter needs to be able to view pets that are available.	Pet Adopter	Name and zip code of the area that they want to view.	All available pets in the area along with the pets information.	In Step 4 of Basic Flow: 1. The pet adopter opens the app. 2. The system asks the user to select a specific radius. 3. The user selects which species (cat/dog), and enters zip code. 4. The system returns all the available pets in the radius of the zipcode along with the pets information. 5. The user can select a pet for adoption or call the shelter for more details.		User is logged into an account; User has a radius preference in their profile information.	User wants to view available pets.	All available pets and their information are displayed to the user.							BR001, BR003 NFR001, NFR002, F0001 NFR003, NFR005	EVO01, EVO03	OID002	PR001, PR002, PR003	author blah		
UC003	Inform the public of a found animal	A shelter employee needs to notify the public that an animal was found to try to find the original owner before letting others adopt the pet.	Shelter Employee	Information about the found animal	Notification messages to all users	1. The shelter employee is given a found animal and opens the app. 2. The system creates a new record for the found animal. 3. The shelter employee creates a profile for the animal by entering its information. 4. The system sends out a notification to all users that an animal was found. 5. The owner of the animal goes to the shelter to reclaim their pet.	In Step 4 of Basic Flow: 1. If there are no pets available for adoption at the shelter. 2. Display a message saying that there are no available pets in their profile information. 3. Return to step two and ask for a different area. 4. Potential reasons for no available pets for adoption: - The shelters nearby don't have any pets. - The shelters nearby.	A pet was found and delivered to the shelter.	All users were notified that a lost animal was found.							BR003, BR005 NFR001, NFR005, F0003 NFR006	EVO06, EVO07		PR005		reviewer blah		
UC004	Update pet information	A shelter employee or veterinarian needs to modify a pet's information.	Shelter Employee, Veterinarian	Name of the pet they are updating information for	Updated pet information	1. The shelter employee or veterinarian logs into the app. 2. The system displays the pets in their organization and a search box. 3. The user enters the name of the pet for which they would like to update information. 4. The system displays the pet's current profile. 5. The user adds, deletes, or modifies the animal's records.		User is logged into an account.	A pet's records need to be updated.	The updated information is saved in the pet's records.						BR003, BR004 NFR005 F0002, F0004	EVO02	OID001					
UC005	Surrender pet	A pet owner wants to surrender their pet.	Pet Owner	Name and information of their pet.	Pet added to the shelter	1. The pet owner opens the app and selects surrender a pet. 2. The system creates a new record for the animal. 3. The pet owner creates a profile for their pet by entering all of the animal's information. 4. The system saves the animal's profile. 5. The pet owner gives the animal to		Pet owner is logged into an account.	Pet owner wants to surrender their pet.	The pet's information is added to the corresponding shelter.						BR003 NFR004, NFR005 F0002	EVO04, EVO05						

, Func Objectives

Functional Objectives							
Author Notes: <input type="text" value="My notes..."/> <span style="float: right;">Score:</span>							
Review Notes: <input type="text" value="Example review notes..."/>							
FO ID	Function (What the System Will Do)	Benefit (Why the System Will Do It)	Measure of Success (How to Know the Objective Has Been Met)	Priority	Traced User Stories	Author Notes	Review Notes
FO001	The system shall allow students to submit sanitation requests.	Improve dorm sanitation response times.	Increase sanitation satisfaction in residence halls by 50%	3	US007, US008		
FO002	The system shall notify parents when a new article is released by housing staff.	Keep parents informed on campus events and incidents as they occur	Increase parent's satisfaction rate with the university by 25%	6	US003, US006		
FO003	The system shall allow students to submit a maintenance request.	Improve dorm maintenace request response times.	Ensure all housing is 98% damage free by the end of the semester.	1	US004, US010		
FO004	The system shall allow potential roommates to directly communicate with each other.	Increase roommate synergy, reduce future roommate issues	Roommate disagreement meetings with RAs decrease by 20%	5	US009		
FO005	The system shall allow students to register to be assigned to OSU residence housing.	Increase student satisfaction with their housing assignment	Increase student satisfaction with OSU housing by 25%	2	US001, US002		
FO006	The system shall track annual housing inspections	To help maintain and keep housing area high quality with no broken utilities	Ensure all housing is 98% damage-free by the end of each academic year	4	US005, US010		

, Non-Func Reqs

## Non-Functional Requirements

Author Notes:	My notes...				Score:
Review Notes:	Example review notes...				
NFR ID	Name	Details	Categories	Author Notes	Review Notes
NFR001	Request Times	Sanitation/Maintence request will be received by Housing Staff within 1 minute of request submission.	Reliability		
NFR002	Phone Compatibility	The app will be cross platform with iOS and Android. Android support since version 7.0 and iOS support since version 16.	Availability		
NFR003	Account Security	Account information will have 2 factor authentication using phone number or email to protect information and data.	Security		
NFR004	Concurrent Users	The app will support up to 500 users during normal operations and 3,000 in peak periods.	Scalability		
NFR005	Data Backup	Automated nightly backups will run every night from 2am-6am (4hrs) for critical data like contact information. Backups shall be stored and retained for a minimum of 30 days.	Recoverability		
NFR006	Data Privacy & Compliance	The system shall distribute newsletter with authorized content only to users that are opted-in, in compliance with FERPA and CAN-SPAM, and retain logs for at least one year.	Regulatory, Security		

, Classes

**Classes**

<p><b>Author Notes:</b> <input type="text" value="My notes..."/></p> <p><b>Review Notes:</b> <input type="text" value="Example review notes..."/> <span style="float: right;">Score:</span></p> <p><b>Diagram:</b> (If the diagram is large, or there are multiple diagrams, you may link to the diagram(s) or embed them as objects, with icons.)</p>									
<b>CL ID</b>	<b>Name</b>	<b>Description</b>	<b>Parent</b>	<b>Attributes</b>	<b>Methods</b>	<b>Traced OIDs</b>	<b>Traced StateCharts</b>	<b>Author Notes</b>	<b>Review Notes</b>
CL001	Parent	Information about a parent of an OSU student		Parent ID, First Name, Last Name, Address, Phone Number, Account	ReadNewsletter() ExpressConcernOrFeedback()	OID002	SC001		
CL002	Housing Staff	Information about an Ohio State Student Life & Housing Administrator		Staff ID, First Name, Last Name, Department, Specialty, Email, Phone Number	OpenNewsletter() FilterData() FinalizeAndSchedule() ScheduleMaintenanceRequest() SubmitInspectionReport() SendInspectionNotice() SendImprovementPlan() CompleteImprovementPlan() AskAdditionalQuestions() ReceiveAnswers()	OID002, OID003	SC003		
CL003	OSU Student	Information about a student that is attending OSU		OSU ID, First Name, Last Name, Address, Phone Number, Account	SubmitRoommatePreferences() ViewHousingOptions() SelectHousing() CreateMaintenanceRequest() SubmitMaintenanceRequest() CreateSanitationRequest() SubmitSanitationRequest() ConfirmInspectionNotice() ReceiveQuestions() AnswerQuestions() SubmitWorkOrder() ReceiveRequest() ReceiveMoreDetails() VisitAdditionalInquiries() ProvideRequestDetails()	OID001, OID003 OID004, OID005	SC002		
CL004	Maintence Request	Information about maintenance request students send through system to housing staff		Request ID, Service type, Preferred time, Student name, Request information	CreateMaintenanceRequest() EnterInfo() SendMaintenanceRequest() ConfirmRequest()...	OID004			
CL005	Newsleter	The newsletter itself; sent out on a (roughly) weekly basis to parents and store by housing staff		Newsletter ID, Topic, Category, Date, Term	DisplayAggregateDate() QueueForDistribution() ReleaseNewsletter() DisplayContactInformation()	OID002	SC001		
CL006	Sanitation Request	Info about sanitation request sent to housing staff		Sanitation ID, Student name, Request Information, Priority, picture attachment	SendsSanitationRequest() SendConfirmation()				

Object Interaction Diagrams						
Author Notes:			Score:			
Review Notes:			Review Notes...			
OID ID	Name	Embedded Diagram	Traced to Use Cases	Author Notes	Review Notes	
OID001	Sanitation Request	#VALUE!	UC001			
OID002	Newsletter Release	#VALUE!	UC004			
OID003	OSU Inspection System	#VALUE!	UC006			
OID004	OSU Maintenance System	<pre> sequenceDiagram     participant HS as Heating Staff     participant OSUStudent as OSU Student     participant OMS as OSU Maintenance System     HS-&gt;&gt;OMS: SubmitWorkOrder()     activate OMS     OMS-&gt;&gt;HS: ReceiveWorkRequest()     deactivate OMS     HS-&gt;&gt;OMS: RequestMoreDetails()     activate OMS     OMS-&gt;&gt;HS: VisitAdditionalLocation()     deactivate OMS     HS-&gt;&gt;OMS: ProcessRequestDetails()     activate OMS     OMS-&gt;&gt;HS: ScheduleMaintenanceNotification()     deactivate OMS   </pre>	UC002			
OID005	OSU Roommate Matching	#VALUE!	UC003			
OID006	Submit Housing Assignment Request	#VALUE!	UC005			

, StateCharts

StateCharts					
Author Notes:			Score:		
Review Notes:					
SC ID	Name (Class)	Embedded Diagram	Trace to OID	Author Notes	Review Notes
SC001	Parent	#VALUE!	OID002		
SC002	Student	#VALUE!	OID005		
SC003	Maintenance Request	#VALUE!	OID004		