

RIPHAH INTERNATIONAL UNIVERSITY ISLAMABAD  
I-14 CAMPUS



**Project Artifact 02**

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**Course:** Software Construction & Development

**Section:** BSSE5-1

**Semester:** 5<sup>th</sup>

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## Use Case 1: View City News

Use Case Section	Comment	
Use Case No	1	
Use Case Name	View City News	
Actor	Resident	
Type	Primary	
Description	This use case allows residents to view daily or weekly city news, updates, and announcements.	
Preconditions	Resident must be logged into the system and have access to the internet.	
Postconditions	Latest city news is displayed successfully to the resident.	
Normal flows	Actor Action:	System Response:
	<b>1.</b> Resident logs into the system.  <b>3.</b> Resident selects the “City News” option.  <b>5.</b> Resident clicks on a specific article.	<b>2.</b> System verifies credentials and loads the dashboard.  <b>4.</b> System retrieves and displays the latest news articles.  <b>6.</b> System shows the full news content with details and date.
Alternative Flow	<b>A1.1.</b> If there is no internet connection, system displays a cached version of previously loaded news.  <b>A1.2.</b> If there are no new updates, system shows “No new news available.”	

## Use Case 2: Report a Problem

Use Case Section	Comment	
Use Case No	2	
Use Case Name	Report a Problem	
Actor	Resident	
Type	Primary	
Description	Allows residents to report issues such as road damage, power outages, or broken streetlights.	
Preconditions	Resident must be logged into the system and have access to the internet.	
Postconditions	The problem report is stored and forwarded to the Admin for review.	
Normal flows	Actor Action:	System Response:
	<p>1 .Resident logs into the system.</p> <p>3 .Resident selects “Report a Problem.”</p> <p>5 .Resident enters issue details and uploads photo (&lt;extend&gt;).</p> <p>7 .Resident submits the report.</p> <p>9 .Resident receives confirmation message.</p>	<p>2 .System opens the main dashboard.</p> <p>4 .System displays the report form..</p> <p>6 .System validates input and allows adding location (&lt;extend&gt;).</p> <p>8 .System saves it and generates a unique Report ID.</p> <p>10 .System notifies Admin about the new report.</p>
Alternative Flow	<p><b>A2.1.</b> If the user doesn't fill all required fields, system prompts to complete them.</p> <p><b>A2.2.</b> If GPS or camera access is denied, system requests permission.</p> <p><b>A2.3.</b> If internet is lost, report is stored locally until reconnection.</p>	

## Use Case 3: Get Notifications

Use Case Section	Comment	
<b>Use Case No:</b>	3	
<b>Use Case Name:</b>	Get Notifications	
<b>Actor:</b>	Resident	
<b>Type:</b>	Secondary	
<b>Description:</b>	Allows residents to receive notifications about new news, report updates, or responses from Admins.	
<b>Preconditions:</b>	Resident must be logged into the system and have access to the internet.	
<b>Postconditions:</b>	Notifications are displayed or stored in the user's notification center.	
<b>Normal flows</b>	<b>Actor Action:</b>	<b>System Response:</b>
	<b>1</b> .Resident logs into the system.  <b>3</b> .Resident opens the notifications panel.  <b>5</b> .Resident selects a notification.	<b>2</b> .System checks for unread notifications.  <b>4</b> .System displays all recent updates.  <b>6</b> .System displays detailed message.
<b>Alternative Flow</b>	<b>A3.1.</b> If there are no notifications, system shows "No new notifications."  <b>A3.2.</b> If push notifications are disabled, system prompts to enable them.	

## Use Case 4: Search Items

Use Case Section	Comment	
<b>Use Case No:</b>	4	
<b>Use Case Name:</b>	Search Items	
<b>Actor:</b>	Resident	
<b>Type:</b>	Primary	
<b>Description:</b>	Enables residents to search for products, services, or businesses within the city.	
<b>Preconditions:</b>	Resident must be logged into the system and have access to the internet.	
<b>Postconditions:</b>	The system displays matching search results.	
<b>Normal flows</b>	<b>Actor Action:</b>	<b>System Response:</b>
	<b>1</b> .Resident logs into the system.  <b>3</b> .Resident selects “Search.”  <b>5</b> .Resident enters name, category, or location.  <b>7</b> .Resident views results.	<b>2</b> .System displays dashboard.  <b>4</b> .System displays search filters.  <b>6</b> .System retrieves matching data (<include>).  <b>8</b> .System displays details of selected item.
<b>Alternative Flow</b>	<b>A4.1.</b> If no results match, system shows “No items found.”  <b>A4.2.</b> If server is busy, system retries or shows cached results.	

## Use Case 5: Give Feedback

Use Case Section	Comment	
<b>Use Case No:</b>	5	
<b>Use Case Name:</b>	Give Feedback	
<b>Actor:</b>	Resident	
<b>Type:</b>	Secondary	
<b>Description:</b>	Allows residents to provide feedback or rate businesses and city services.	
<b>Preconditions:</b>	Resident must be logged into the system and have access to the internet.	
<b>Postconditions:</b>	Feedback is successfully submitted and saved in the database.	
	Actor Action:	System Response:
<b>Normal flows</b>	<b>1</b> .Resident logs into the system.	<b>2</b> .System loads the feedback section.
	<b>3</b> .Resident selects a business or service.	<b>4</b> .System displays feedback form.
	<b>5</b> .Resident enters comments and rating.	<b>6</b> .System validates input.
	<b>7</b> .Resident submits feedback.	<b>8</b> .System saves feedback and confirms submission.
	<b>A5.1.</b> If feedback is empty, system prompts user to write comments.	
	<b>A5.2.</b> If server error occurs, system retries later.	
<b>Alternative Flow</b>		

## Use Case 6: Get Suggestions

Use Case Section	Comment	
<b>Use Case No:</b>	6	
<b>Use Case Name:</b>	Get Suggestions	
<b>Actor:</b>	Resident	
<b>Type:</b>	Secondary	
<b>Description:</b>	Provides personalized suggestions based on user's interests and location.	
<b>Preconditions:</b>	Resident must be logged into the system and have access to the internet.	
<b>Postconditions:</b>	Relevant suggestions are displayed on the user dashboard.	
<b>Normal flows</b>	<b>Actor Action:</b>	<b>System Response:</b>
	<b>1</b> .Resident logs into the system.  <b>3</b> .Resident opens “Suggestions.”	<b>2</b> .System analyzes user data and location.  <b>4</b> .System displays personalized recommendations.
<b>Alternative Flow</b>	<b>A6.1.</b> If location permission denied, system prompts to enable it.  <b>A6.2.</b> If no suggestions available, system displays “No recommendations yet.”	

## Use Case 1: Add Business Details

Use Case Section	Comment	
<b>Use Case No:</b>	1	
<b>Use Case Name:</b>	Add Business Details	
<b>Actor:</b>	Business Owner	
<b>Type:</b>	Primary	
<b>Description:</b>	This use case allows the business owner to add details about their business, such as name, address, contact info, and description, to make it visible in the Link City System.	
<b>Preconditions:</b>	Business owner must be logged into the system and have access to the internet.	
<b>Postconditions:</b>	The business details are stored and submitted to the Admin for approval.	
Normal flows	Actor Action:	System Response:
	<b>1</b> .Business owner logs into the system.	<b>2</b> .System loads the dashboard.
	<b>3</b> .Business owner selects “Add Business.”	<b>4</b> .System displays the business registration form.
	<b>5</b> .Owner enters business name, address, contact details, and description.	<b>6</b> .System validates all fields.
	<b>7</b> .Owner submits the form.	<b>8</b> .System saves the business details and sends them to Admin for review.
	<b>9</b> .System confirms submission.	<b>10</b> .Admin receives notification for approval.
	<b>A1.1.</b> If any required field is missing, the system displays an error message.	
	<b>A1.2.</b> If the business already exists, the system alerts the owner about duplication.	
	<b>A1.3.</b> If internet connection fails, data is saved locally until connection is restored.	
Alternative Flow		

## Use Case 2: Add Product Details

Use Case Section	Comment	
<b>Use Case No:</b>	2	
<b>Use Case Name:</b>	Add Product Details	
<b>Actor:</b>	Business Owner	
<b>Type:</b>	Primary	
<b>Description:</b>	This use case allows business owners to add or update products offered by their business, including product name, price, description, and availability.	
<b>Preconditions:</b>	Business owner must be logged into the system, and their business must be approved by the Admin.	
<b>Postconditions:</b>	Product details are successfully saved and displayed under the business profile.	
Normal flows	Actor Action:	System Response:
	1 .Business owner logs into the system.	2 .System opens the dashboard.
	3 .Owner selects their approved business.	4 .System displays options to manage products.
	5 .Owner clicks “Add Product.”	6 .System opens product form.
	7 .Owner enters product name, price, description, and uploads image.	8 .System validates data and saves the product.
	9 .Owner receives confirmation message.	10 .System updates the business product list.
	<b>A2.1.</b> If any mandatory detail is missing, the system prompts to fill it.	
	<b>A2.2.</b> If image upload fails, the system allows retry.	
	<b>A2.3.</b> If the business is not yet approved, system shows message “Cannot add products until business is approved.”	
Alternative Flow		

## Use Case 3: Respond to Customer Feedback

Use Case Section	Comment	
<b>Use Case No:</b>	3	
<b>Use Case Name:</b>	Respond to Customer Feedback	
<b>Actor:</b>	Business Owner	
<b>Type:</b>	Secondary	
<b>Description:</b>	Allows business owners to read and respond to feedback or comments left by customers.	
<b>Preconditions:</b>	Business owner must be logged into the system and the business must have at least one feedback entry.	
<b>Postconditions:</b>	The response is recorded and visible to the customer and Admin.	
<b>Normal flows</b>	Actor Action:	System Response:
	1 .Business owner logs into the system.	
	3 .Owner selects “Customer Feedback.”	2 .System shows feedback notifications.
	5 .Owner selects a feedback item.	4 .System displays list of feedback entries.
	7 .Owner writes a reply message.	6 .System displays detailed view with comment and rating.
		8 .System saves the reply and notifies the customer.
	<b>A3.1.</b> If there is no feedback, system displays “No feedback available.”	
	<b>A3.2.</b> If internet connection fails, reply is saved locally for later upload.	
<b>Alternative Flow</b>		

## Use Case 4: View Business Performance

Use Case Section	Comment	
<b>Use Case No:</b>	4	
<b>Use Case Name:</b>	View Business Performance	
<b>Actor:</b>	Business Owner	
<b>Type:</b>	Secondary	
<b>Description:</b>	This use case allows the business owner to view business insights such as traffic, ratings, and customer engagement.	
<b>Preconditions:</b>	Business owner must be logged into the system and the business must be active.	
<b>Postconditions:</b>	System displays business performance data and analytics.	
<b>Normal flows</b>	<b>Actor Action:</b>	<b>System Response:</b>
	<b>1</b> .Business owner logs into the system.  <b>3</b> .Owner selects “View Business Performance.”  <b>5</b> .Owner views reports with reviews and feedback (<extend>).	<b>2</b> .System loads business dashboard.  <b>4</b> .System retrieves business analytics from database.  <b>6</b> .System displays graphs, ratings, and recent activity.
<b>Alternative Flow</b>	<b>A4.1.</b> If analytics data is unavailable, system shows “No data found.”  <b>A4.2.</b> If internet is slow, system displays partial data with refresh option.	

## Use Case 1: Review Reports

Use Case Section	Comment	
<b>Use Case No:</b>	1	
<b>Use Case Name:</b>	Review Reports	
<b>Actor:</b>	Admin (City Official)	
<b>Type:</b>	Primary	
<b>Description:</b>	This use case allows the Admin to review issues submitted by residents and decide whether to approve or reject them.	
<b>Preconditions:</b>	Admin must be logged into the system and have access to the internet.	
<b>Postconditions:</b>	The report is reviewed and either approved or rejected by the Admin.	
<b>Normal flows</b>	<b>Actor Action:</b>	<b>System Response:</b>
	<b>1</b> .Admin logs into the system.  <b>3</b> .Admin selects “Review Reports.”  <b>5</b> .Admin clicks on a specific report to view details.  <b>7</b> .Admin reviews the report and selects an action (<extend>).	<b>2</b> .System displays the Admin dashboard.  <b>4</b> .System lists all pending reports submitted by residents.  <b>6</b> .System displays report description, photo, and location.  <b>8</b> .System updates report status and notifies the respective resident.
<b>Alternative Flow</b>	<b>A1.1.</b> If the report contains incomplete information, system prompts Admin to request more details.  <b>A1.2.</b> If internet is lost, review process is paused until connection is restored.	

## Use Case 2: Manage Records

Use Case Section	Comment	
<b>Use Case No:</b>	2	
<b>Use Case Name:</b>	Manage Records	
<b>Actor:</b>	Admin (City Official)	
<b>Type:</b>	Primary	
<b>Description:</b>	This use case enables the Admin to manage all user accounts, business listings, and system categories to maintain proper structure.	
<b>Preconditions:</b>	Admin must be logged into the system and connected to the database.	
<b>Postconditions:</b>	Selected records are successfully updated or modified as per the Admin's actions.	
Normal flows	Actor Action:	System Response:
	<b>1</b> .Admin logs into the system.	
	<b>3</b> .Admin selects “Manage Records.”	<b>2</b> .System displays management dashboard.
	<b>5</b> .Admin selects a record type (<extend>).	<b>4</b> .System shows available record types (Users, Businesses, Categories).
	<b>7</b> .Admin edits, adds, or removes data.	<b>6</b> .System loads the relevant records.
		<b>8</b> .System validates and saves changes.
	<b>A2.1.</b> If invalid data is entered, system displays an error message.	
	<b>A2.2.</b> If database is locked or unavailable, system alerts Admin and retries later.	

## Use Case 3: Create Reports

Use Case Section	Comment	
<b>Use Case No:</b>	3	
<b>Use Case Name:</b>	Create Reports	
<b>Actor:</b>	Admin (City Official)	
<b>Type:</b>	Primary	
<b>Description:</b>	This use case allows the Admin to generate summary reports about system activity, business performance, or resident issues.	
<b>Preconditions:</b>	Admin must be logged into the system and have access to all relevant data.	
<b>Postconditions:</b>	The requested report (daily or weekly) is successfully generated and saved.	
<b>Normal flows</b>	<b>Actor Action:</b>	<b>System Response:</b>
	<b>1</b> .Admin logs into the system.  <b>3</b> .Admin selects “Create Reports.”  <b>5</b> .Admin selects “Daily” or “Weekly” (<extend>).  <b>7</b> .Admin confirms report creation.	<b>2</b> .System displays reporting options.  <b>4</b> .System prompts for type and date range.  <b>6</b> .System retrieves relevant data.  <b>8</b> .System generates report and saves it in database.
<b>Alternative Flow</b>	<b>A3.1.</b> If data is missing, system notifies Admin and skips incomplete sections. <b>A3.2.</b> If report generation fails, system allows retry.	

## Use Case 4: Manage Information

Use Case Section	Comment	
<b>Use Case No:</b>	4	
<b>Use Case Name:</b>	Manage Information	
<b>Actor:</b>	Admin (City Official)	
<b>Type:</b>	Secondary	
<b>Description:</b>	Allows the Admin to edit or delete incorrect or harmful information from the system.	
<b>Preconditions:</b>	Admin must be logged into the system and have access permissions for modification.	
<b>Postconditions:</b>	Information is updated or deleted successfully in the system.	
<b>Normal flows</b>	Actor Action:	System Response:
	1 .Admin logs into the system.	2 .System displays data management options.
	3 .Admin selects “Manage Information.”	4 .System loads available data records.
	5 .Admin chooses a record to edit or delete (<extend>).	6 .System executes the requested action.
	7 .System confirms the update or deletion.	8 .System logs the action for transparency..
	<b>A4.1.</b> If Admin tries to delete restricted data, system denies access.	
	<b>A4.2.</b> If an edit fails validation, system requests correct data.	
<b>Alternative Flow</b>		

## Use Case 5: Keep Records

Use Case Section	Comment	
<b>Use Case No:</b>	5	
<b>Use Case Name:</b>	Keep Records	
<b>Actor:</b>	Admin (City Official)	
<b>Type:</b>	Secondary	
<b>Description:</b>	This use case allows the Admin to maintain logs of all system actions, including user activity, reports, and updates for transparency and auditing.	
<b>Preconditions:</b>	Admin must be logged into the system and have access to the data storage.	
<b>Postconditions:</b>	Records are securely stored and can be retrieved when required.	
<b>Normal flows</b>	<b>Actor Action:</b>	<b>System Response:</b>
	<b>1</b> .Admin logs into the system.  <b>3</b> .Admin selects “Keep Records.”  <b>5</b> .Admin reviews, filters, or exports data.	<b>2</b> .System opens record management dashboard.  <b>4</b> .System displays log options (User logs, Business logs, Report logs).  <b>6</b> .System updates logs and ensures they are securely backed up.
<b>Alternative Flow</b>	<b>A5.1.</b> If storage is full, system alerts Admin to free space.  <b>A5.2.</b> If backup fails, system retries automatically.	