TSN Design Document – Version3

January 6, 2010

Scope of the Project:

Building a PHP/ MySQL based web application for linking the experimental images, connected to various research topics, to the list of frequently asked questions / discussions about the research topic in question symbolized by and represented by the image / set of images. This is necessarily a doubly linked list of FAQs (logical list) with reference to any research topic with each question pointing ahead to the next question and also having a pointer to the previous question on the same research topic. In addition there will be a serial list of FAQs.

Input to the System:

- Images pertaining to research topics uploaded by TIFR researchers
- Questions / Comments from people
- Answers by researchers

Final Output of the System:

- Serial list of FAQs
- Logical doubly linked list of FAQs linked to the respective image
- Related reports & Logs

System Functional Requirements

- Create UI forms to Accept Questions
- Create UI for researchers to answer questions
- Tag & link Answers to Questions
- Serial Linking of FAQ
- Logical linking of FAQ with images
- Detailed logging at every step with end user accessed IP and profile.
- Generate the report formats
  - Threaded FAQs
  - Logical linking with reference to images
  - Detailed Logs

System Context

Images appear at the TIFR Home page

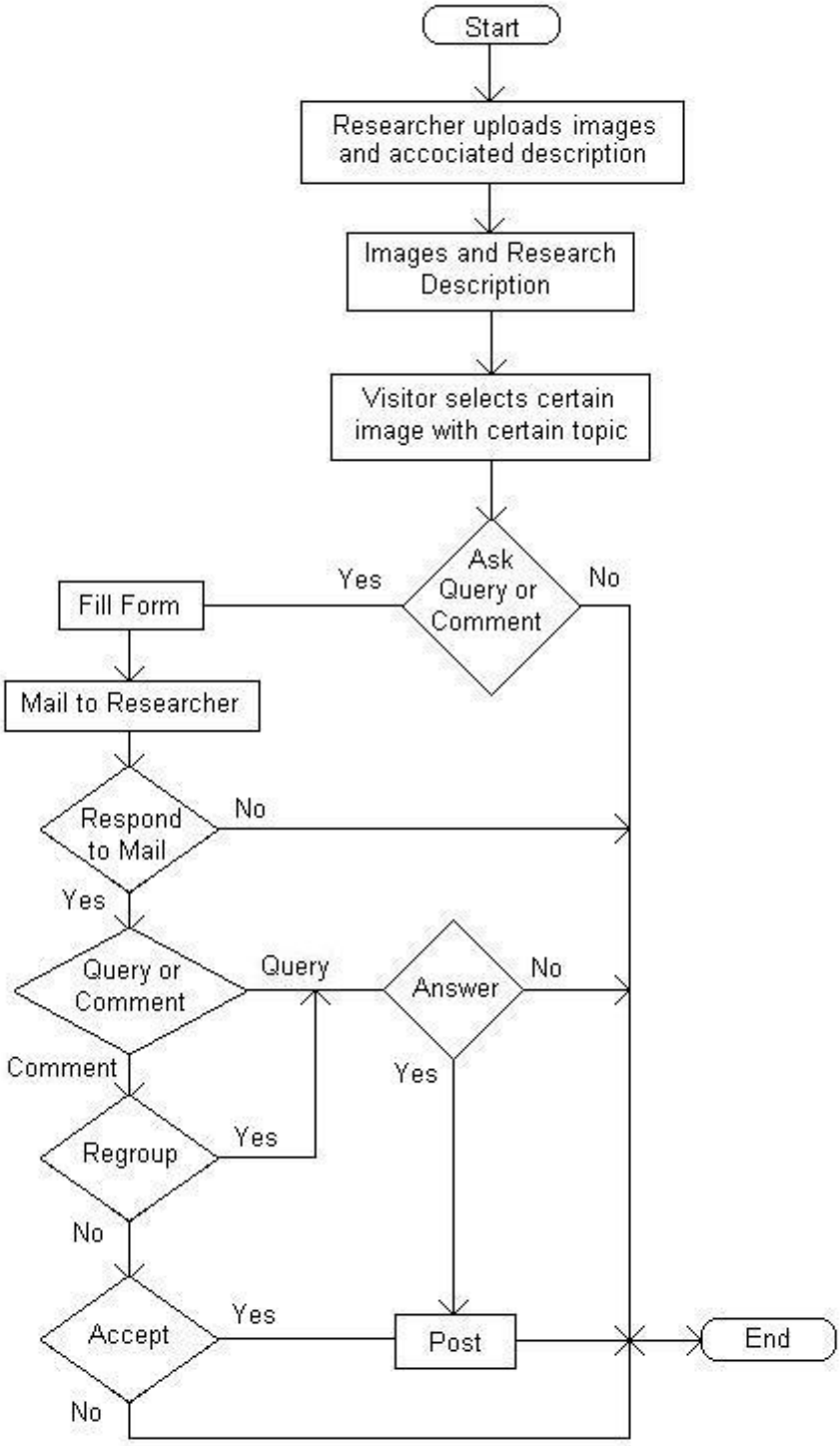
On clicking the image FAQ page is opened

Visitor can post a query or comment on the topic.

Authentic Researcher will validate the comments or reply to the query and post it accordingly

Related FAQ s are grouped and displayed in the query page

Flowgraph:


Start
Researcher uploads images and accociated description
Images and Research Description
Visitor selects certain image with certain topic
Ask Query or Comment
Yes
No
Fill Form
Mail to Researcher
Respond to Mail
No
Yes
Query or Comment
Query
Answer
No
Comment
Yes
Regroup
Yes
No
Accept
Yes
Post
End
No

User Interface Elements

- Form for images upload
- Form for posting query / comments
- FAQ page

Moderator (Admin) Elements

- Researcher response form

Main page (TIFR home page)

Main page will display images related to the research topics posted by the concerned researchers in a division of mainbody content. Researcher uploads the image and he/she is the moderator for the discussion (FAQ) under this research topic. These images also act as an anchor tag to the FAQ page.

Associated tables : Images Table, FAQ Table

- Images Table has the following Back End Attributes
    - Researcher code
    - Image name
    - Image Group id (unique per research topic -- used for logical mapping)
    - Child Image Id (many images to one research topic mapping)
    - Research topic.
    - URL (It can be either of Internal Reference or External References)
    - Text (anchor tags to the above URL)
    - Section (Internal reference or external references)

Researcher ccode	Image name	Image Id	Image Grp. ID	Research area	URL	Text	Section
ABC123	IMG_1_R1.jpg	IMG_1_1	IGRP_1	R1	X3_1.html	X3	Internal
ABC123	IMG_2_R1.jpg	IMG_2_1	IGRP_1	R1	X3_1.html	X3	Internal
ABC123	IMG_3_R1.jpg	IMG_3_1	IGRP_1	R1	EX_1.html	EX1	External
ZYX987	IMG_1_R2.jpg	IMG_1_2	IGRP_2	R2	S_1.html	S1	Internal
ZYX987	IMG_2_R2.jpg	IMG_2_2	IGRP_2	R2	K_1.html	K1	External

- **FAQ Table has the following back end attributes are**
    - Visitor Accessed IP,
    - Image id,
    - Researcher code,
    - Question id
    - Answer id
    - Question time stamp
    - Answer time stamp

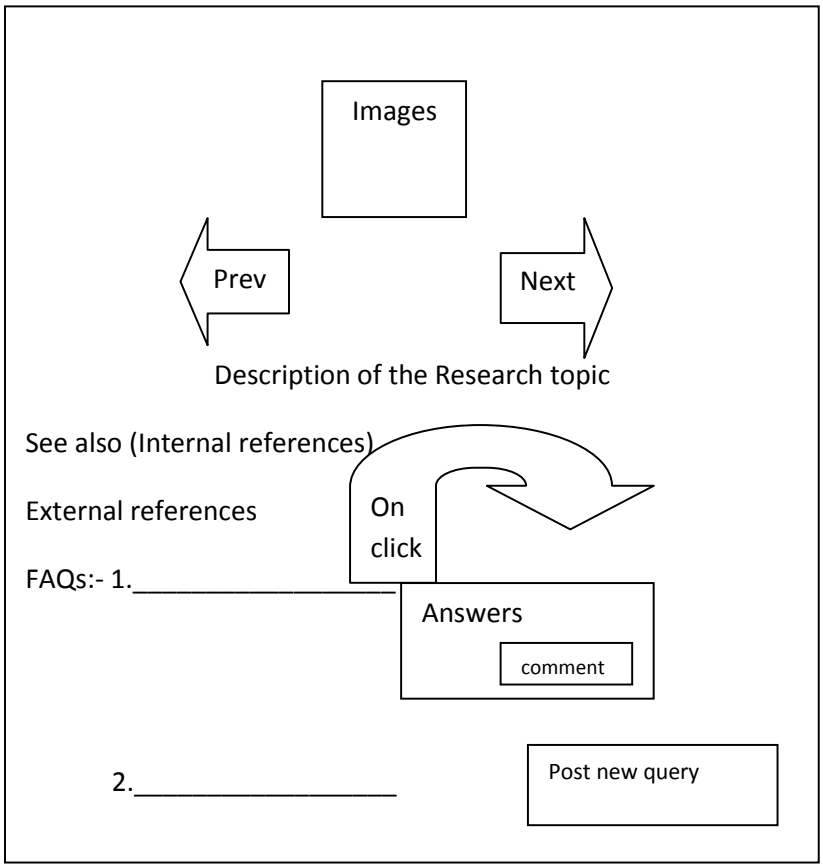
Qry (1) / Comt(0)	Visitors IP	Image Id	Researcher Ccode	Question Id	Answer Id	Question Timestamp	Answer Timestamp
1(Qry)	1.3.4.5	IGRP_1	ABC123	Q1	A1	01.01.2010	02.01.2010
1(Qry)	2.5.6.7	IGRP_2	ZYX987	Q1	A1	02.01.2010	02.01.2010
0(Cmt)	1.2.3.4	IGRP_1	ABC123	Q1	A11	03.01.2010	04.01.2010
0(Cmt)	2.3.4.5	IGRP_1	ABC123	Q1	A12	03.01.2010	04.01.2010
0(Cmt)	3.4.5.6	IGRP_1	ABC123	Q2(#)	A2	03.01.2010	04.01.2010

 # Visitor's comment Regrouped by the moderator becomes a new question for the topic :: rectification measure for a visitor committed error of clicking the 'comment' button rather than 'post query' button.

- **Uses people1 as facilitating table.**

FAQ Page:

Frontend:



Consist of 4 sections:

- Selected image
- Research topic description
- Internal references
- External references
- FAQs.
- Detailed Query page (Which appears in a hide and show format. :: Action: Click a Question.)

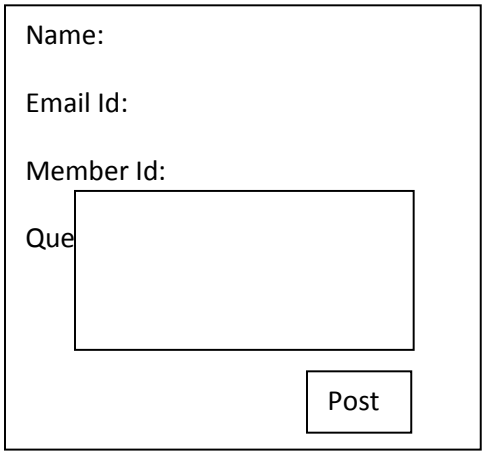
The FAQ section consists of queries posted by visitors on a particular research topic.

- When a visitor wants to post a new question, he simply clicks on the post new query button and it takes him to the Post query page. He has to fill up the details and post query.

- To post a comment on the existing question, the visitor has to click the hyperlink on the question. On click the QA expands to a group of related posts on the same question. The user can view posts related to the particular question and the visitor in turn can click on the comment button to post a comment on an answer or post a related query which will again be moderated by the researcher. For this the comment is again routed to the researcher‘s email for content validation and appending to the thread.

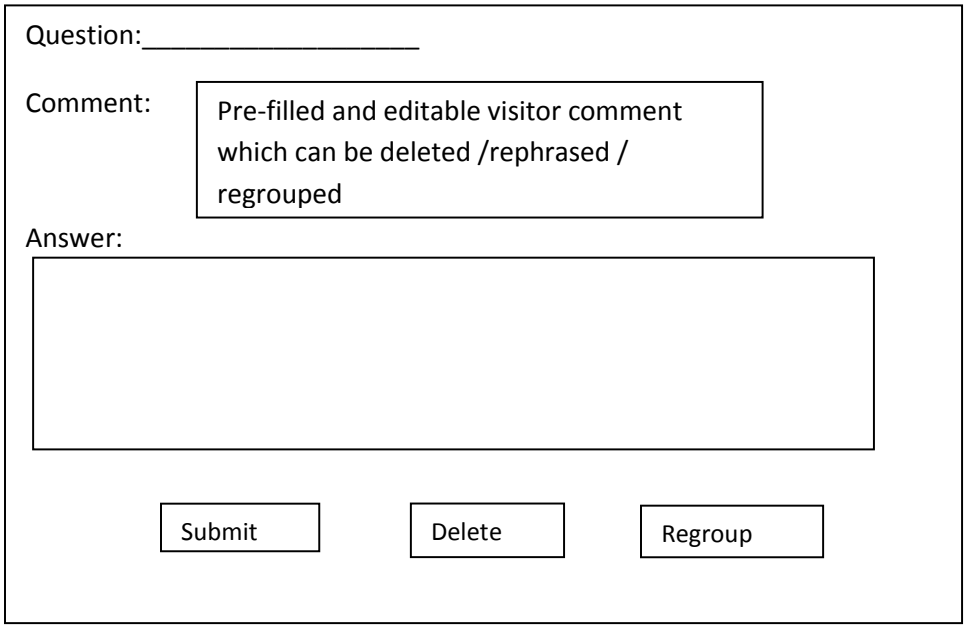
Post Query Form Fields

- Name
- Email Id
- Member Id (Only If he is a TIFR member)
- Query



The field inputs from the visitor (name, mail-id, member-id) may be relevant or may not be relevant for a given FAQ Information system. So these can be configured to be enabled / disabled by the administrator. As soon as the visitor fills up the above detailsand clicks on ‘Post’, the system fetches the authentic researcher from the image table and gets the computer code and fetches the email from people finder and then a system mail is sent to the concerned Researcher to inform him that a comment (query or answer) has to be validated and / or answered for posting. If the comment is a query then he has to answer it. Once validated, it is threaded to the concerned question and posted as a FAQ under the image. Backend table timestamps are updated.

Response Form (For the Researcher)



Fields:

- Question
- Comment
- Answer

The Researcher receives an e-mail whenever a Query or a comment is posted by a visitor. The Researcher has the authority to modify, delete or regroup the comment. Unless and until the researcher replies to the query or validates the comment, it is not posted. There are various levels of alerting the researcher.

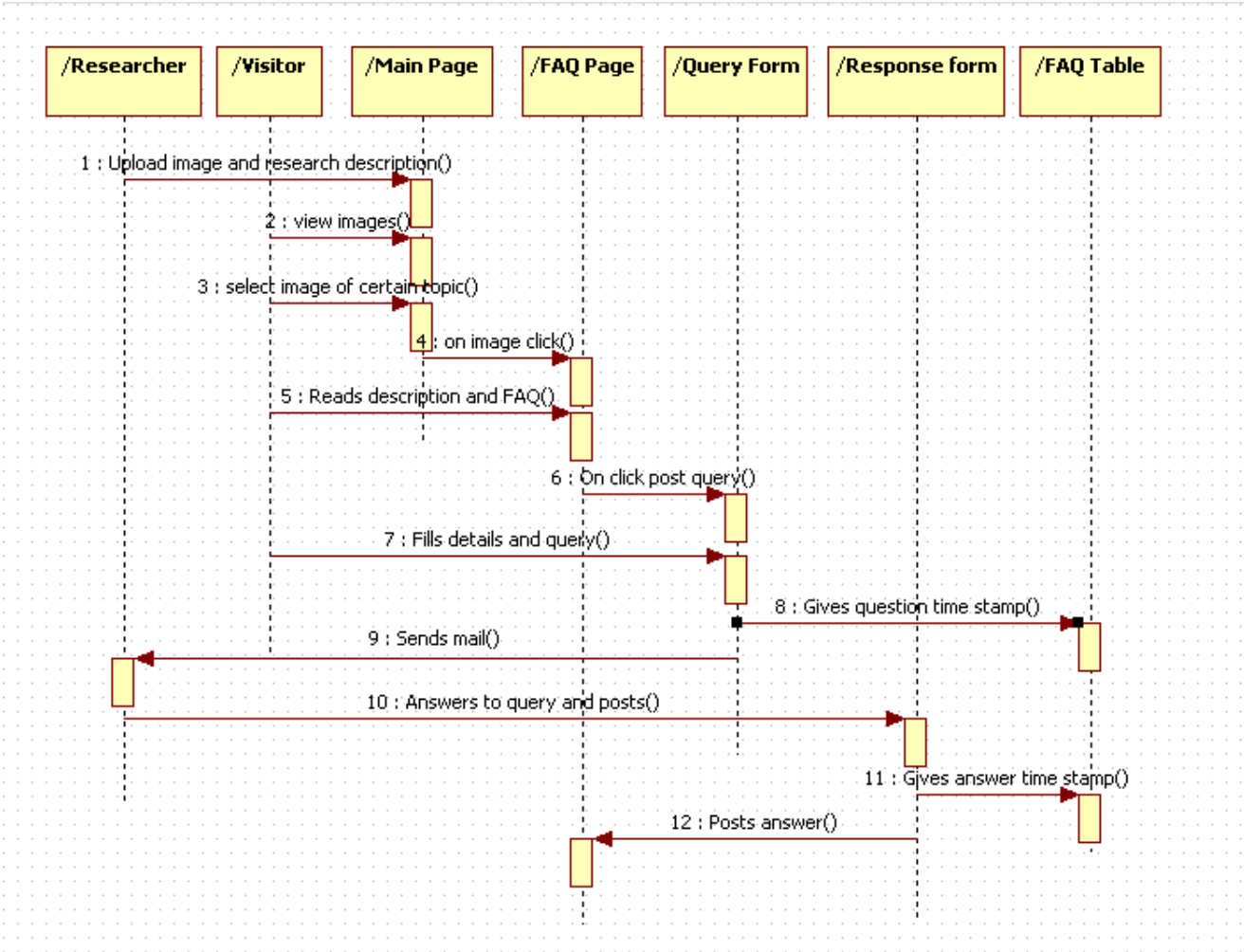
- First alert is the email generated when the visitor posts the Query / Comment.
- Second Alert is email after a week in case the query is still unanswered.
- Third alert is the email after a month.

Reports

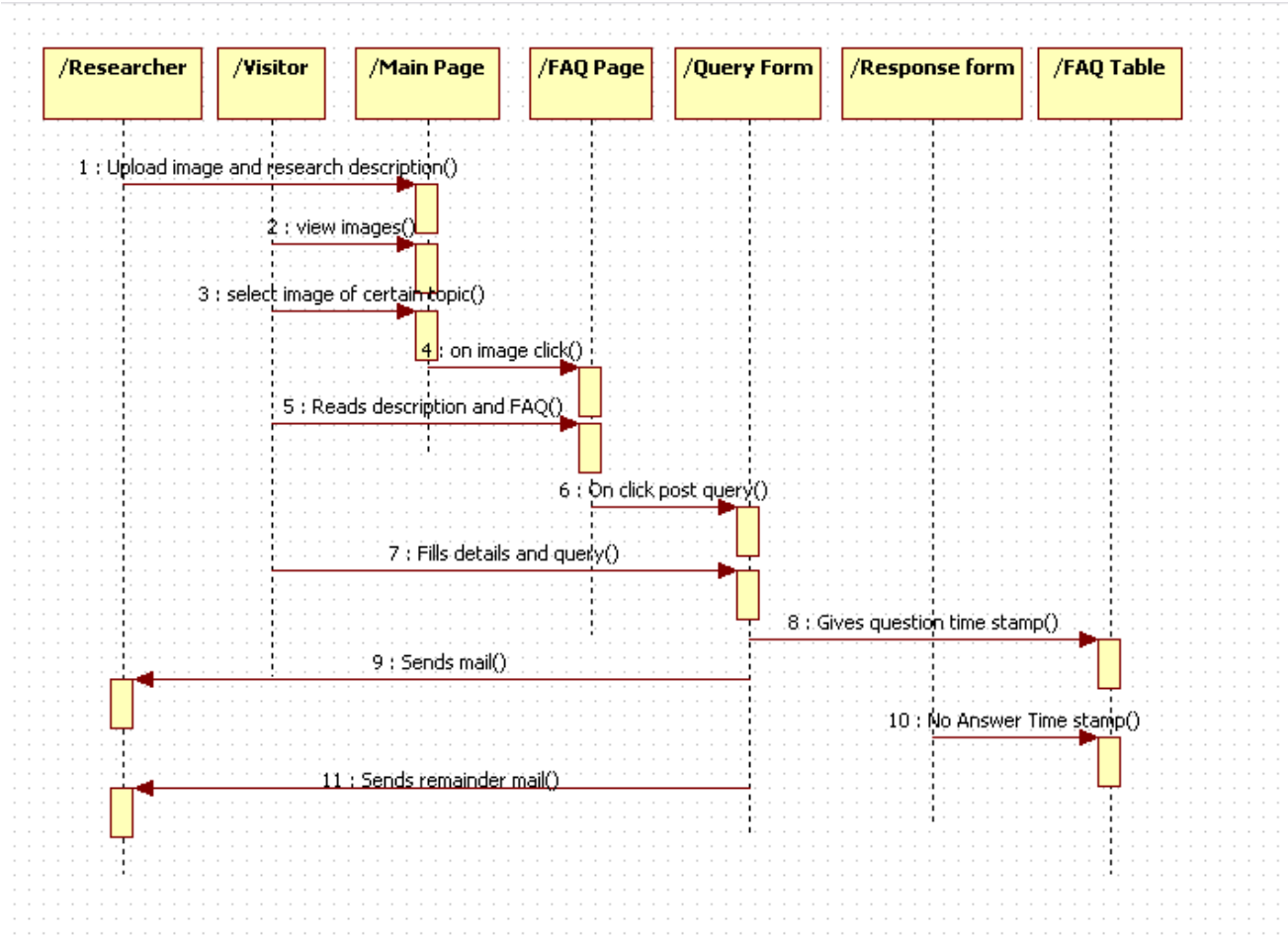
- Event Logs with timestamp.
- Serial FAQ
- Logical FAQ
- Most Active / Visited Thread / Research topic
- Latest Research. (How to get this?)

Sequence Diagram

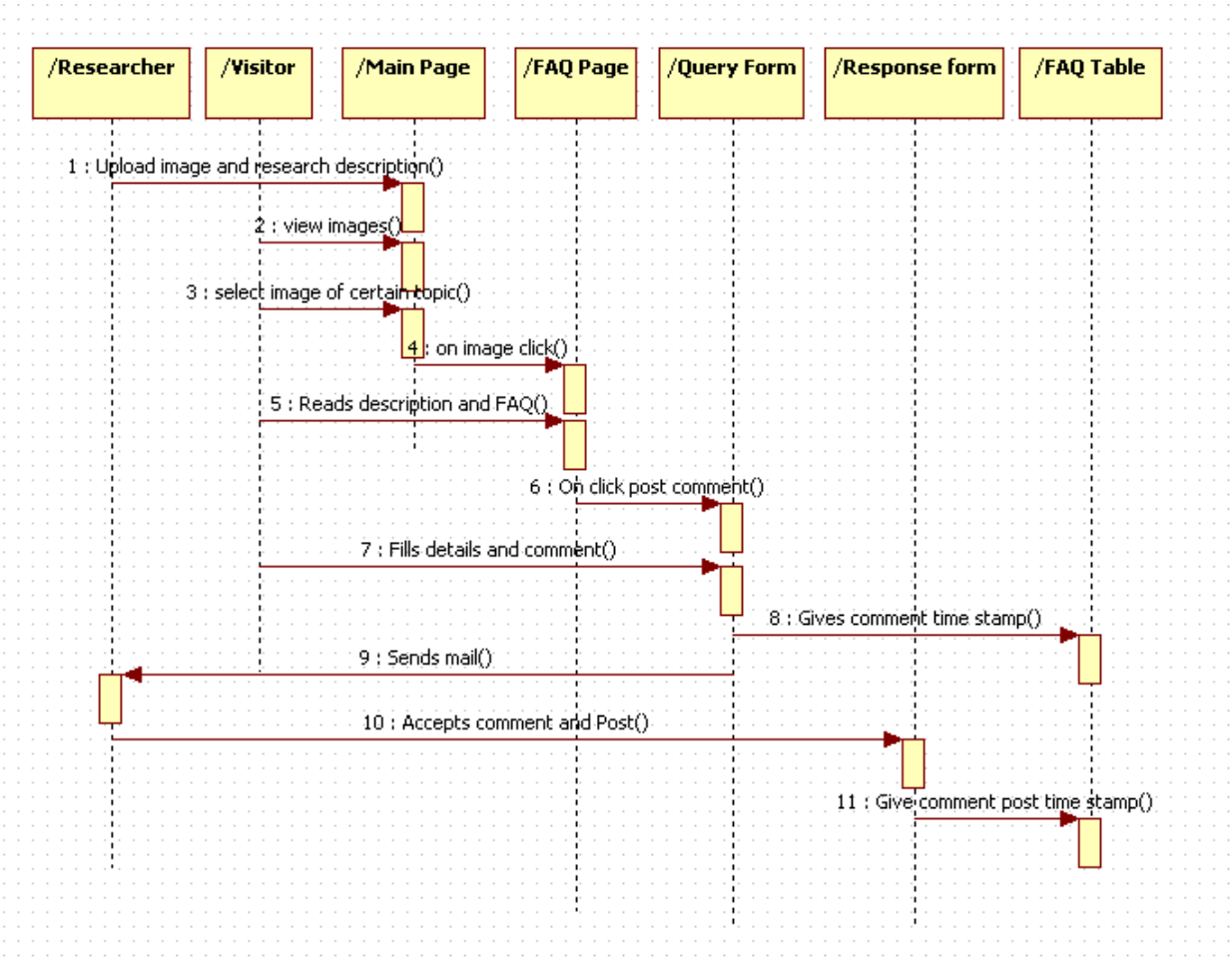
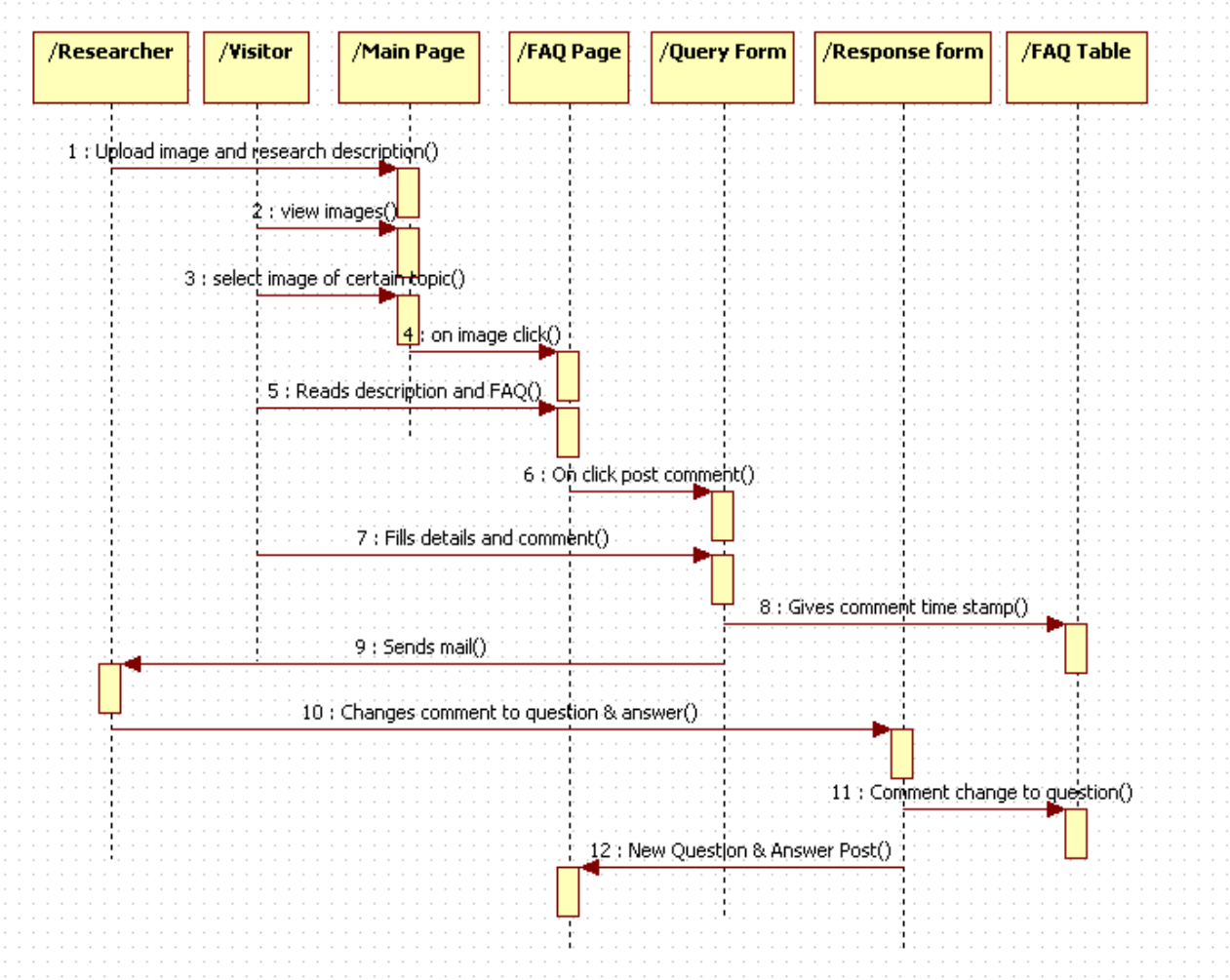
1. Query and Reply



2. Query and No Reply



3. Comment and post



4. Comment Regroup