

## Transaction Processing Deliverables: FA25 - SP26

### Instructions:

- Make a copy of this document and rename it using the following format: FirstName\_LastName\_FA'25-SP'26 TP Deliverables.
- Do not delete or modify any of the existing questions/content.
- Add your responses directly below each question in the same document.
- If your response includes a link, please ensure that it is accessible.
- Your deliverables will be checked for AI-generated content. Use of AI tools will result in disqualification.

### Question 1:

Give definitions for the terms listed below based on your understanding:

1. HTML- Hyper Text Markup Language is known as the skeleton. HTML is used to format and lay out text on a webpage (This includes images, links, and video).
2. JavaScript – JS helps make webpages more interactive. It controls animations, buttons, validation, and updating content on the spot.
3. CSS – Cascading Style Sheets is the makeup of the web page. This code is used for color, size, alignment, etc.
4. Data dictionary – Is a document that provides a detailed description of the data used in your application. It is used as a reference for individuals that need it. Making sure that everyone understands the structure and meaning of the data.
5. Pseudocode – it's a simplified description of a piece of code written to allow people to understand. Basically, an outline to show how the program works before writing it.
6. Synopsis – is basically a summary of the website. It offers a description of what the usage of the website is, target audience, and what the website is all about, from services to interactive features. It is also used for documentation, presentations, or even proposals.

**Question 2:**

Create a video walkthrough of the website you created in class, including a clear explanation of its functionality and underlying code. In your video, please include the following:

- A brief explanation of the purpose and functionality of your website.
- A guided tour of the website's user interface and how a user would interact with it.
- A walkthrough of the codebase (HTML, CSS, JavaScript), explaining the logic behind key features.

The video should be around 5-10 minutes long. Upload it to YouTube as Unlisted and paste the link below.

Video Link: <https://youtu.be/kmrEzzetTyw>

**Question 3:**

Choose any page from the MISSO website (misso.org) and create a diagram that represents its structure and layout.

Your diagram does not need to be exactly the same, but it should clearly outline the main sections and elements of the page (e.g., header, navigation menu, content blocks, buttons, forms, etc.).

You may use tools like draw.io to create your diagram. Do not hand-draw. Paste your diagram below.

# MISSO

Management Information System  
Student Organization

## Become a Member

Please fill out the following information to submit payment and become a member

You must be a student at UH main campus to be a MISSO member.

Membership will be for the Fall 2025 Semester. **No Refunds.**

Name\*

First \_\_\_\_\_ Last \_\_\_\_\_

Email\*

\_\_\_\_\_

Gender\*

Male \_\_\_\_\_

Are you a UH Main Campus Student\*

Yes \_\_\_\_\_

PSID\*

\_\_\_\_\_

Personal Email\*

\_\_\_\_\_

CougarNet Email\*

\_\_\_\_\_

Groupme Username\*

\_\_\_\_\_

Age\*

Under 18 \_\_\_\_\_

Primary Major\*

Management Information System \_\_\_\_\_

Second Major\*

None \_\_\_\_\_

Minor\*

None \_\_\_\_\_

Classification\*

Freshman \_\_\_\_\_

Graduating Semester\*

Fall \_\_\_\_\_

Graduating Year\*

2025 \_\_\_\_\_

Ethnicity\*

Asian \_\_\_\_\_

Membership Type\*

\$65.00 - Membership Only \_\_\_\_\_

Coupon

Please review our [Privacy Policy](#) before Continuing

Check this box if you have read and agree with our privacy policy\*

No \_\_\_\_\_

Submit

#### Question 4:

Write pseudocode for the same MISSO website page you selected for your diagram.

Your pseudocode should outline the main structure and functionality of the page. It does not need to include every detail, but it should clearly reflect the key logic and flow. Use a clear structure and indentation to make it easy to follow.

```
BEGIN PAGE "Become a Member – MISSO Signup"

// ----- 1. INITIAL SETUP -----

LOAD site header and navigation menu
DISPLAY logo
DISPLAY menu items:
Home, About Us, Events & Activities, Partnership, Alumni, Members (Become a
Member, Newsletter)

DISPLAY page title: "Become a Member"

DISPLAY instructions:
- "Please fill out the following information to submit payment and become a
member."
- "You must be a student at UH main campus to be a MISSO member."
- "Membership will be for the Fall 2025 Semester. No Refunds."

ENDIF

// ----- 2. DISPLAY SIGNUP FORM -----

CREATE FORM "MISSO Membership Signup"
// PERSONAL INFORMATION
FIELD first_name (text, required)
FIELD last_name (text, required)
```

FIELD email (text, required)

FIELD gender (radio: Male, Female, required)

FIELD uh\_main\_student (radio: Yes, No, required)

// Must be "Yes" to be eligible

FIELD psid (text, required)

FIELD personal\_email (text, required)

FIELD cougarnet\_email (text, required)

FIELD groupme\_username (text, required)

FIELD age\_range (dropdown, required)

OPTIONS: Under 18, 18–22, 23–29, 30+

FIELD primary\_major (dropdown, required)

Select: MIS, SCM, Finance, Accounting, Marketing,

Computer Science, Computer Information Systems,

Undeclared, Other

FIELD second\_major (dropdown, optional)

Select: None + same list as primary major

FIELD minor (dropdown, optional)

Select: None + same list as primary major

FIELD classification (dropdown, required)

Select: Freshman, Sophomore, Junior, Senior

FIELD graduating\_semester (dropdown, required)

Select: Fall, Spring, Summer

FIELD graduating\_year (dropdown, required)

Select: 2025–2030

FIELD ethnicity (dropdown, required)

Select: Asian, White, Black or African American,

Latino, Native American or other Pacific Islander,

Prefer not to answer

// MEMBERSHIP DETAILS

FIELD member\_status (radio, required)

OPTIONS: New Member, Returning Member

FIELD membership\_type (radio, required)

Select:

A: "\$65.00 - Membership Only"

B: "\$75.00 - Membership + MISSO Shirt"

FIELD member\_shirt\_size (dropdown, required)

Select: XS, Small, Medium, Large, XL, XXL, XXXL

// COUPON + PRIVACY

FIELD coupon\_code (text, optional)

BUTTON "Apply" for coupon

FIELD privacy\_agree (checkbox, required)

DISPLAY link: "Please review our Privacy Policy"

LABEL: "Check this box if you have read and agree with our privacy policy"

BUTTON "Submit" (submit form)

// ----- 3. FORM BEHAVIOR & LOGIC -----

ON PAGE LOAD:

IF membership\_type == "Membership Only" THEN

ELSE IF membership\_type == "Membership + MISSO Shirt" THEN

ENDIF

SET TOTAL\_AMOUNT = base\_price - APPLIED\_COUPON\_DISCOUNT

END FUNCTION

ON CHANGE membership\_type:

```
ON CLICK "Apply" (coupon button):
    READ coupon_code
    IF coupon_code is empty THEN
        DISPLAY message: "Please enter a coupon code."
    ELSE
        IF coupon_code is valid (check against allowed list / API) THEN
            CALCULATE APPLIED_COUPON_DISCOUNT based on coupon rules
            DISPLAY message: "Coupon Applied."
        ENDIF
    // ----- 4. VALIDATION BEFORE SUBMIT -----
    FUNCTION validateForm()
        // Required text fields
        FOR each required_text_field IN
            [first_name, last_name, email, psid,
            personal_email, cougarnet_email, groupme_username]
            IF required_text_field is empty THEN
                DISPLAY error near field: "This field is required."
                SET valid = FALSE
            ENDIF
        END FOR
        // Required radios/dropdowns
        IF gender not selected THEN
            DISPLAY error for gender
            SET valid = FALSE
        ENDIF
        IF uh_main_student not selected THEN
```

```
    DISPLAY error for uh_main_student

    SET valid = FALSE

    ELSE IF uh_main_student == "No" THEN

        DISPLAY message: "You must be a UH main campus student to join MISSO."

        SET valid = FALSE

    ENDIF

    IF primary_major not selected THEN

        DISPLAY error

        SET valid = FALSE

    ENDIF

    IF classification not selected THEN

        DISPLAY error

        SET valid = FALSE

    ENDIF

    IF graduating_semester not selected OR graduating_year not selected THEN

        DISPLAY error

        SET valid = FALSE

    ENDIF

    IF ethnicity not selected THEN

        DISPLAY error

        SET valid = FALSE

    ENDIF

    IF member_status not selected THEN

        DISPLAY error

        SET valid = FALSE

    ENDIF
```

```
IF membership_type not selected THEN
    DISPLAY error
    SET valid = FALSE
ENDIF

IF member_shirt_size not selected THEN
    DISPLAY error
    SET valid = FALSE
ENDIF

// Privacy policy checkbox
IF privacy_agree is NOT checked THEN
    DISPLAY error: "You must agree to the privacy policy to continue."
    SET valid = FALSE
ENDIF

// Basic email format checks (optional)
FOR each email_field IN [email, personal_email, cougarnet_email]
    IF email_field is not in valid email format THEN
        DISPLAY error near that email field
        SET valid = FALSE
    ENDIF
END FOR

// ----- 5. FORM SUBMISSION -----
ON CLICK "Submit":
    IF validateForm() == FALSE THEN
        PREVENT form submission
        SCROLL to first error
        EXIT
```

```
ENDIF

// If form is valid, process payment

DISABLE "Submit" button

DISPLAY loading indicator

SEND membership data + payment details to payment gateway

WAIT for payment response

IF payment is SUCCESS THEN

    // Save membership information in MISSO system

    STORE member record in database (or via form provider)

    DISPLAY confirmation message:

    "Thank you for becoming a MISSO member!"

ELSE

    ENABLE "Submit" button

    DISPLAY error message from payment gateway:

    "Payment failed. Please check your card information or try again."

ENDIF

// ----- 6. FOOTER -----


DISPLAY footer:

"2025 MISSO Management Information Systems Student Organization at
University of Houston. All rights reserved."


END PAGE
```

### Question 5:

Use basic HTML to complete the questions below. Each question should be answered using only lines of HTML code - there's no need to build a full website or include a complete page structure like `<!DOCTYPE html>`, `<html>`, or `<body>`.

```
<!DOCTYPE html>
```

```
<html lang="en">
  <body>
    <h1>Hoang</h1>
  </body>
<a href="https://misso.org" target="_blank">Visit the MISSO Website</a>
</html>
```

1. Create a heading that displays your first name using an appropriate HTML heading tag.
2. Add a link that takes users to the official MISSO website. Use the  tag with the correct href attribute so that when clicked, the text opens https://misso.org in the browser.

### Question 6:

How do you plan to keep the TP committee active, engaged, and learning throughout the semester? Please share any specific ideas or initiatives you have in mind for this role.

- Hold weekly meetings to help members with homework and exam preparation.
- Make a weekly polling in Groupme to keep track of where everyone is at.
- Celebrate members success if they get the grade they wanted.
- (Maybe) set up a discord server
- Create videos to guide members for homework and
- Update the transaction processing committee hub

### Question 7

How would you ensure shy or quiet members also feel comfortable asking for help?

For the members that are shy or quiet

- Encouraging questions by setting rules that give members confidence to speak
- Provide multiple ways of communicating (private chatting)
- Create group discussions to show that they aren't the only ones feeling lost
- Set a tone of by being patient, open minded, and supportive
- Ask questions to everyone so it doesn't seem like I'm putting anyone on the spot