

Web Development II

Final Project

Masahiro (Leader)

Taisei

Bosco

Contents

- How do we divide our tasks
- What were our big Issues
- What we learned
- Future Improvements
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Task Division

Masahiro

- Common Functions Part
- Category Part
- Transaction Validation
- Toast Notification
- Login Part

Taisei

- Transaction Part
- Filter Part
- Confirmation Message
- Calculate Account Balance
- Responsive Design

Bosco

- Account Part
- CSS Styling
- Create Web App Design
- Duplicate alert

Big Issues

Big Issues - Masahiro

Handling validations for creating new transaction.

```
183 const transactionValidationDefs = [
184   {
185     elementSelector: "#accountId",
186     errMsg: "Please select Account.",
187     class: "",
188     validation: function () {
189       if (
190         $('input[name="transactionType"]:checked').val() ===
191         TRANSACTION_TYPE_TRANSFER
192       ) {
193         return true;
194       } else {
195         if ($(this.elementSelector).val() == SELECT_BOX_DEFAULT_VALUE) {
196           return false;
197         }
198         return true;
199       }
200     },
201   },
202   {
203     elementSelector: "#accountIdFrom",
204     errMsg: "Please select From Account.",
205     class: "",
206     validation: function () {
207       if (
208         $('input[name="transactionType"]:checked').val() !==
```

```
145 //4. set validation function to new transaction
146 transactionValidationDefs.forEach((def, i) => {
147   //prepare hidden error message
148   $(def.elementSelector).after(
149     `<p id="error-message-${i}" class="error-message ${def.class}" sty
150     |   ${def.errMsg}</p>`
151   );
152
153   const errorMessageSelector =
154     def.class === "" ? `p#error-message-${i}` : `p.${def.class}`;
155
156   $(def.elementSelector).change(async function () {
157     //show error message
158     const result = await def.validation();
159     if (!result) {
160       $(`${def.elementSelector} ~ ${errorMessageSelector}`).show();
161     } else {
162       $(`${def.elementSelector} ~ ${errorMessageSelector}`).hide();
163       if (def.class !== "") {
164         $(`${errorMessageSelector}`).hide();
165       }
166     }
167     //change button availability
168     await ChangeAddTransactionButtonAvailability();
169   });
170 });
```

Big Issues - Taisei

- Unwilling commits can make merging difficult
- Coordination of commits among team members is important
- Pay attention to commits for project success

The screenshot shows a GitHub pull request titled "Feature/transactions #3". At the top, it indicates that "Taisei-Yamaguchi merged 13 commits into development from feature/transactions" 5 days ago. Below this, there are statistics: 12 conversations, 13 commits, 0 checks, and 2 files changed, with a net change of +174 lines and -68 lines. The main content area shows a comment from "Taisei-Yamaguchi" (a collaborator) stating "No description provided." followed by a comment from "small-valley" (the owner) requesting changes and asking to "Please solve conflicts as well." Below the comments, there is a list of files with their status: ".DS_Store" (Outdated), "frontend/index.html" (Outdated), and "frontend/js/helpers/Transaction.js" (Outdated). Each file has a "Show resolved" link. On the right side, there are sections for "Reviewers" (small-valley is approved), "Assignees" (No one—assign yourself), "Labels" (None yet), "Projects" (None yet), "Milestone" (No milestone), and "Notifications" (Unsubscribe button). At the bottom, it shows "2 participants".

Big Issues - Bosco

- using the wrong logic to add the account to the server
- failed to get wanted information from server

```
// Event listener for when the addAcc form is submitted
$("#addAcc").submit(async (event) => {
  event.preventDefault();
  const newName = $("#accountInput").val().trim();

  const accounts = await Get("accounts");

  if (accounts.some(account => account.username === newName)) {
    alert("Account already exists!");
    return;
  }

  const result = await Post("accounts", {
    newAccount: newName,
  });

  if (!showNotification(result)) {
    return;
  }

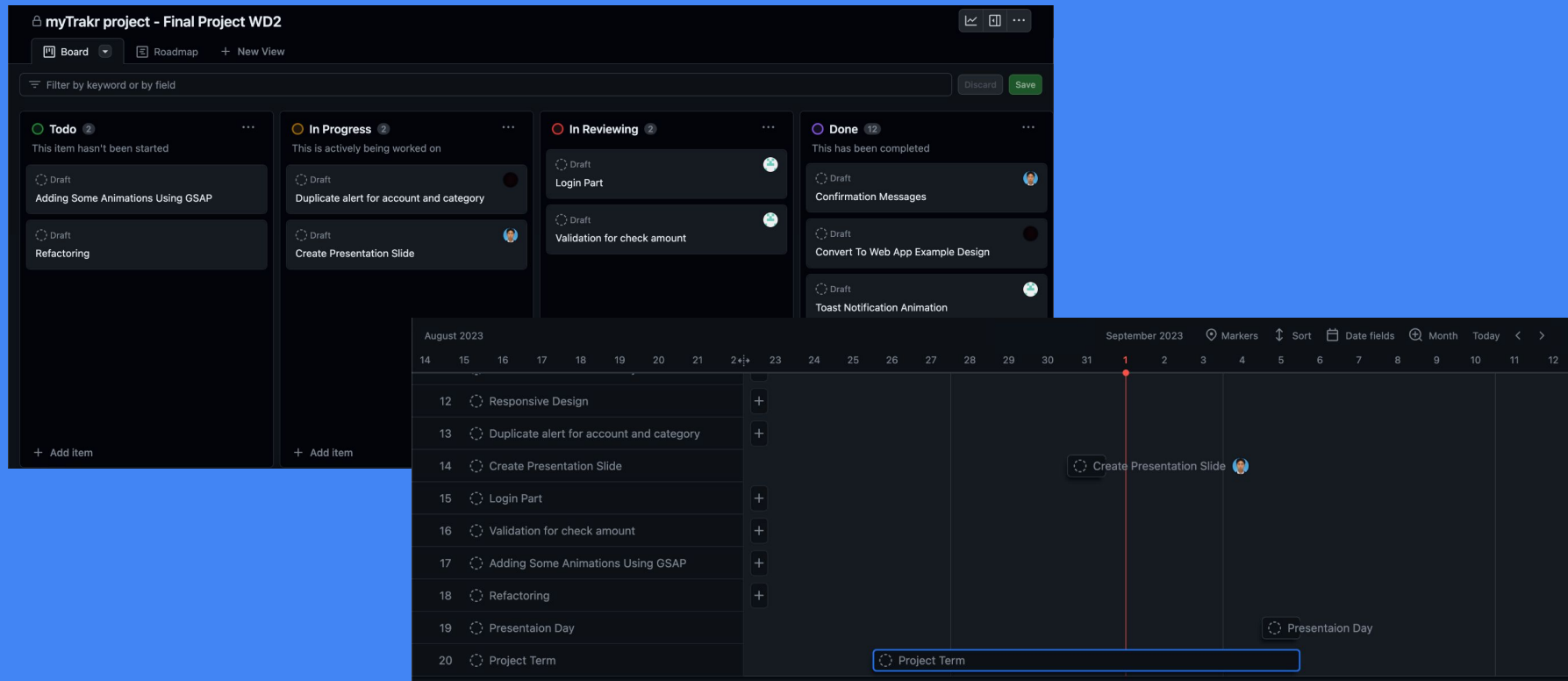
  updateUI({
    id: result.id,
    username: newName,
  });

  // Clear input
  $("#accountInput").val("");
  $("#accBtn").attr("disabled", true);
});
```


What We Learned

What We Learned - Masahiro

Using GitHub Projects to manage our project.



What We Learned - Taisei

```
// get transaction info by API request
const transactionsResponse = await Get("transactions");
const categoryResponse = await Get("categories");
const accountsResponse = await Get("accounts");

// Format account information into an associative array
const accountMap = {};
accountsResponse.forEach((account) => {
  accountMap[account.id] = account;
});

// Format category information into an associative array
const categoryMap = {};
categoryResponse.forEach((category) => {
  categoryMap[category.id] = category;
});
```

```
// get t-body
const $tableBody = $("#transaction-table-body");

transactionsResponse.forEach((account) => {
  // add transactions info to table
  account.forEach((transaction) => {
    const $row = $("<tr>");
    $row.html(`
      <td>${transaction.id}</td>
      <td>${accountMap[transaction.accountId].username}</td>
      <td>${transaction.type}</td>
      <td>${categoryMap[transaction.categoryId].name}</td>
      <td>${transaction.description}</td>
      <td>${transaction.amount}</td>
      <td>${
        transaction.accountIdFrom
          ? accountMap[transaction.accountIdFrom].username
          : "_"
      }</td>
      <td>${
        transaction.accountIdTo
          ? accountMap[transaction.accountIdTo].username
          : "_"
      }</td>
    `);
    $tableBody.append($row);
  });
});
```

What We Learned - Bosco

- getting and posting information from server
- compare data from server with user input

```
// Event listener for when the addAcc form is submitted
$("#addAcc").submit(async (event) => {
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  const newName = $("#accountInput").val().trim();

  const accounts = await Get("accounts");

  if (accounts.some(account => account.username === newName)) {
    alert("Account already exists!");
    return;
  }

  const result = await Post("accounts", {
    newAccount: newName,
  });

  if (!showNotification(result)) {
    return;
  }

  updateUI({
    id: result.id,
    username: newName,
  });

  // Clear input
  $("#accountInput").val("");
  $("#accBtn").attr("disabled", true);
});
```

Future Improvements

- Add some animations for better UI.
- Code refactoring, Styling and Designing
- Transforming all html codes into jQuery

Demonstration