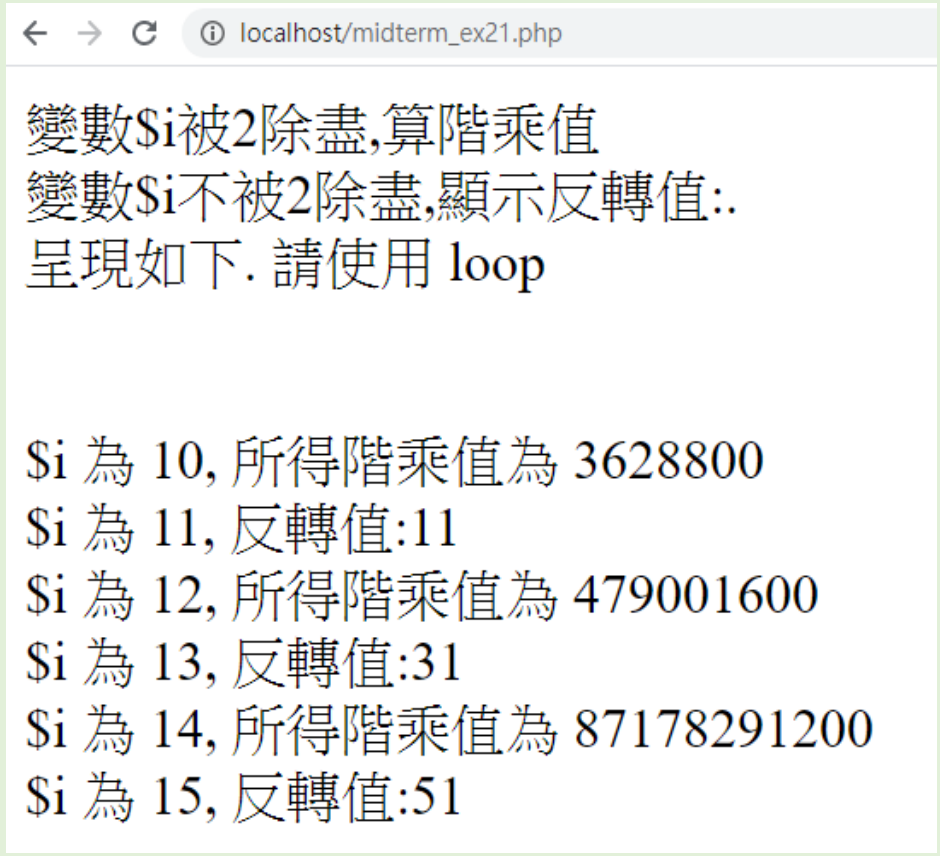
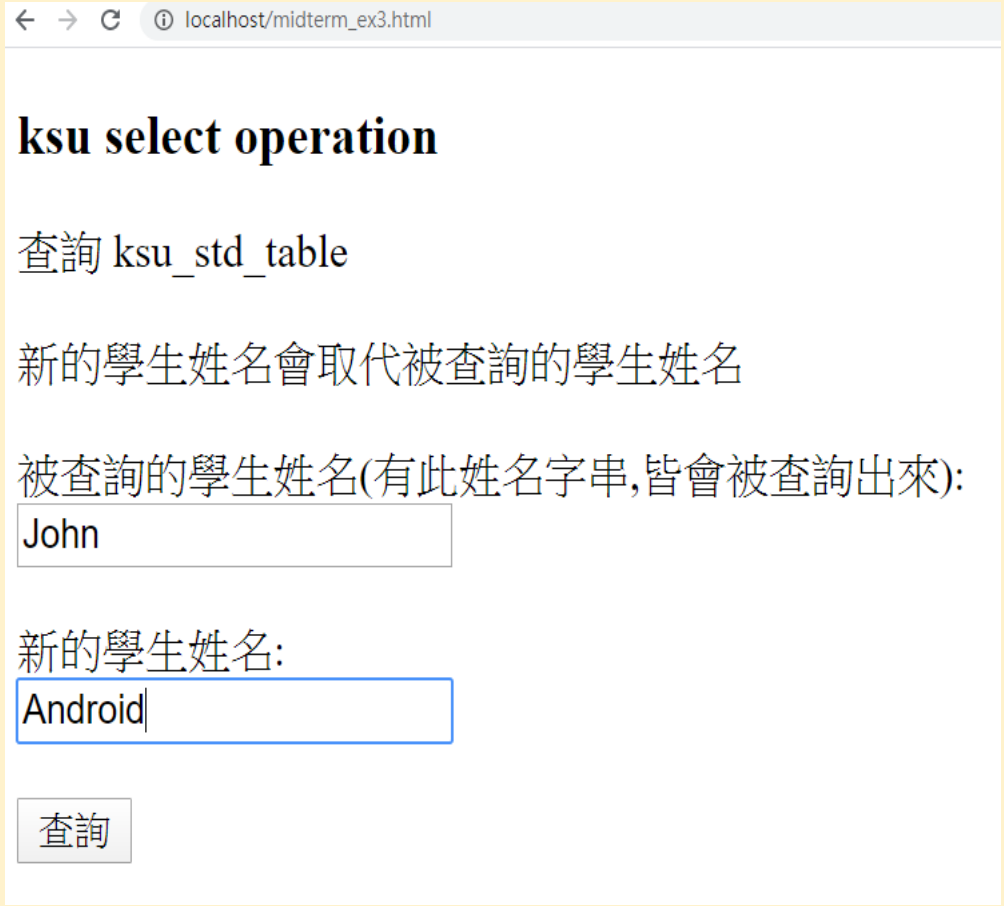
- Grading Criterion (use pts instead of points for short):
  - 25 pts for each question.
  - Q1:
    - -25 pts: The program cannot run. Or, no ideas how to run it.
    - -20 pts: The program can run and get the same results without looping programming
    - -5 ~ -20 pts: Some outputs are not matched with the requests.
  - Q2~Q4:
    - -25 pts: The program cannot run. Or, no ideas how to run it.
    - -20 pts: The programs cannot fulfill the main purpose of this question.
    - -5 ~ 20 pts: Some outputs are not matched with the requests.

Q1)搭配loop與變數$i; 若變數$i 被2除盡, 算階乘值. 若變數$i不被2除盡, 顯示反轉值. 呈現如下. 請使用 loop, 呈現在Browser如下. p.s. 階乘值: N!=N*(N-1)*(N-2)*...*2*1



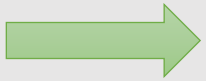
midterm_ex21.php

Q2) Please show the results as follows. The student name being searched and new one will be passed to the backend program. Additionally, the new one is used and showed on the output instead of the searched name.



midterm_ex31.html
Midterm_ex31.php

Q3) Please show the results as follows. The backend program just search the students that department is not the same as the one passed by the frontend interface. Your results need to demonstrate the total number of students found, the number of students failed, and the number of students' grades than 79.



midterm_ex41.html
Midterm_ex41.php

Q4) Please show the results as follows. Your backend program has to process the assigned table, and classify the department number and calculate the its corresponding student numbers.

midterm_ex51.html
Midterm_ex51.php

The following hints are for your inquiry.

Hints:

Definition and Usage

The str_replace() function replaces some characters with some other characters in a string.

This function works by the following rules:

- If the string to be searched is an array, it returns an array
- If the string to be searched is an array, find and replace is performed with every array element
- If both find and replace are arrays, and replace has fewer elements than find, an empty string will be used as replace
- If find is an array and replace is a string, the replace string will be used for every find value

Note: This function is case-sensitive. Use the str_ireplace() function to perform a case-insensitive search.

Note: This function is binary-safe.

Syntax

```
str_replace(find,replace,string,count)
```

Parameter Values

Parameter	Description
find	Required. Specifies the value to find
replace	Required. Specifies the value to replace the value in *find*
string	Required. Specifies the string to be searched
count	Optional. A variable that counts the number of replacements

Definition and Usage

The strpos() function finds the position of the first occurrence of a string inside another string.

Note: The strpos() function is case-sensitive.

Note: This function is binary-safe.

Related functions:

- strrpos() - Finds the position of the last occurrence of a string inside another string (case-sensitive)
- stripos() - Finds the position of the first occurrence of a string inside another string (case-insensitive)
- strripos() - Finds the position of the last occurrence of a string inside another string (case-insensitive)

Syntax

```
strpos(string,find,start)
```

Parameter Values

Parameter	Description
string	Required. Specifies the string to search
find	Required. Specifies the string to find
start	Optional. Specifies where to begin the search. If *start* is a negative number, it counts from the end of the string.

Definition and Usage

The strcmp() function compares two strings.

Note: The strcmp() function is binary-safe and case-sensitive.

Tip: This function is similar to the strncmp() function, with the difference that you can specify the number of characters from each string to be used in the comparison with strncmp().

Syntax

```
strcmp(string1,string2)
```

Parameter Values

Parameter	Description
string1	Required. Specifies the first string to compare
string2	Required. Specifies the second string to compare

Definition and Usage

The strchr() function searches for the first occurrence of a string inside another string.

This function is an alias of the strstr() function.

Note: This function is binary-safe.

Note: This function is case-sensitive. For a case-insensitive search, use stristr() function.

Syntax

```
strchr(string,search,before_search);
```

Parameter Values

Parameter	Description
string	Required. Specifies the string to search
search	Required. Specifies the string to search for. If this parameter is a number, it will search for the character matching the ASCII value of the number
before_search	Optional. A boolean value whose default is "false". If set to "true", it returns the part of the string before the first occurrence of the *search* parameter.

Definition and Usage

The strrev() function reverses a string.

Syntax

```
strrev(string)
```

Parameter Values

Parameter	Description
string	Required. Specifies the string to reverse

The End