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BSC IT.

Ques 1.

Ans. #include <stdio.h>

#include <ctype.h>

#include <limits.h>

#include <math.h>

#include <stdbool.h>

#include <stddef.h>

#include <stdin.h>

#include <stdlib.h>

#include <string.h>

char* headline();

char* ltrim(char*);

char* rtrim(char*);

int parse - int(char*);

int main()

{ File * fptr = fopen(getenv("Output - PATH"), "w");

int n = parse - int(ltrim(rtrim(headline())));

int** customers = malloc(n * size of (int*));

for (int i = 0; i < n; i++)

{ *(customers + i) = malloc(2 * (size of (int)));

char** customers - item - temp = split - string(rtrim(headline()));

for (int j = 0; j < 2; j++)

{ int customers - item = parse - int(*(customers - item - temp + j));


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((customers + i) + j) = customers - item; } }
int result = minimum Average (n, 2, customers);
fprintf (fptr, "%d\n", result);
fclose (fptr);
return 0;
}

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char * readline () {

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size_t alloc_length = 1024;

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size_t data_length = 0;

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char * data = malloc (alloc_length);

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while (true)

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{ char * cursor = data + data_length;

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char * line = fgets (cursor, alloc_length - data_length, stdin);

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if (!line)

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{ break; }

```

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if (data_length < alloc_length - 1 || data[data_length - 1] == '\n')

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{ break; }

```

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alloc_length <<= 1;

```

```

data = realloc (data, alloc_length);

```

```

if (!data) {

```

```

data = '\0';

```

```

break;

```

```

}

```

```

}

```

```

if (data[data_length - 1] == '\n') {

```

```

data[data_length - 1] = '\0'; } }

```


else
{ data = realloc (data, data - length + 1);

if (!data)

{ data = '\0';

} else {

data [data - length] = '\0';

}

}

return data;

}

char * ltrim (char * str)

{ if (!str) {

return '\0';

}

if (!*str) {

return str;

}

while (*str != '\0' && isspace (*str)) {

str++;

}

return str;

}

char * rtrim (char * str) {

if (!str) {

return '\0';

}

if (!*str) {

return str;

}

char * end = str + strlen (str) - 1;

while (end >= str && isspace (*end)) {

end--;

}


```

* (end + 1) = '\0';
return str;
}

char ** split-string (char * str)
{
    char ** splits = NULL;
    char * token = strtok (str, " ");
    int spaces = 0;
    while (token) {
        splits = realloc (splits, size of (char *) * ++ spaces);
        if (! splits) {
            return splits;
        }
        splits [spaces - 1] = token;
        token = strtok (NULL, " ");
    }
    return splits;
}

int parse - int (char * str) {
    char * endptr;
    int value = strtol (str, & endptr, 10);
    if (endptr == str || endptr != '\0')
        exit (EXIT_FAILURE);
    return value;
}

```

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