課題12_option

<div align="right">1X22B138 □□□□□</div>

2025/11/12

課題3の発展内容をまとめる。

プログラム

volatile有無

```c
#include <stdio.h>
#include <time.h>
int main(){
    clock_t start, end;
    unsigned int port;

    volatile char stra[]="waseda";
    //char stra[]="waseda";
    char strb[5];

    start = clock();
    printf("□□□□:%d\n",start);

    strb[0]='U';
    strb[1]='N';
    strb[2]='I';
    strb[3]='V';
    strb[4]='\n';

    printf("□□□stra□%8s□□\n",stra);
    printf("□□□strb□%8s□□\n",strb);

    end = clock();
    printf("□□□□:%ld\n\n",end);
    printf("□□□□=%ld[cpu□□],%3lf[s]\n",end-start,(double)(end-start)/CLOCKS_PER_SEC);
    return 0;
}
```

結果

```
masuda@DESKTOP-JOV4TPA:~/work/C_intermediate/src$ ./kadai12
□□□□:615
□□□stra□  waseda□□
□□□strb□UNIV
waseda□□
```

```
実行時刻:667

実行時間=52[cpu時間],0.000052[s]
```

考察と感想

volatile指定

```c
#include <stdio.h>
#include <time.h>
int main(){
    clock_t start, end;
    unsigned int port;

    //volatile char stra[]="waseda";
    char stra[]="waseda";
    char strb[5];

    start = clock();
    printf("実行時刻:%d\n",start);

    strb[0]='U';
    strb[1]='N';
    strb[2]='I';
    strb[3]='V';
    strb[4]='\n';

    printf("文字列straは%8sです\n",stra);
    printf("文字列strbは%8sです\n",strb);

    end = clock();
    printf("実行時刻:%ld\n\n",end);
    printf("実行時間=%ld[cpu時間],%3lf[s]\n",end-start,(double)(end-
start)/CLOCKS_PER_SEC);
    return 0;
}
```

結果

```
masuda@DESKTOP-JOV4TPA:~/work/C_intermediate/src$ ./kadai12
実行時刻:703
文字列straは  wasedaです
文字列strbはUNIV
wasedaです
実行時刻:745

実行時間=42[cpu時間],0.000042[s]
```