Xilinx Zynq FPGA, TI DSP, MCU 기반의 프로그래밍 및 회로 설계 전문가 과정

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01

8일차 내용 복습 (stack)

```
}
alswnqodrl@alswnqodrl-900X3K:~/Downloads$ vi stack.c
alswnqodrl@alswnqodrl-900X3K:~/Downloads$ gcc stack.c
alswnqodrl@alswnqodrl-900X3K:~/Downloads$ ./a.out
30
20
10
Stack is EMPTY!!!
0
alswnqodrl@alswnqodrl-900X3K:~/Downloads$ cat stack.c
#include <stdio.h>
#include <malloc.h>
#define EMPTY 0

struct node
{
        int data;
        struct node *link;
};
typedef struct node Stack;

Stack *get_node()
{
        Stack *tmp;
        tmp=(Stack*)malloc(sizeof(Stack));
        tmp->link=EMPTY;
        return tmp;
}
```

01

8일차 내용 복습 (stack)

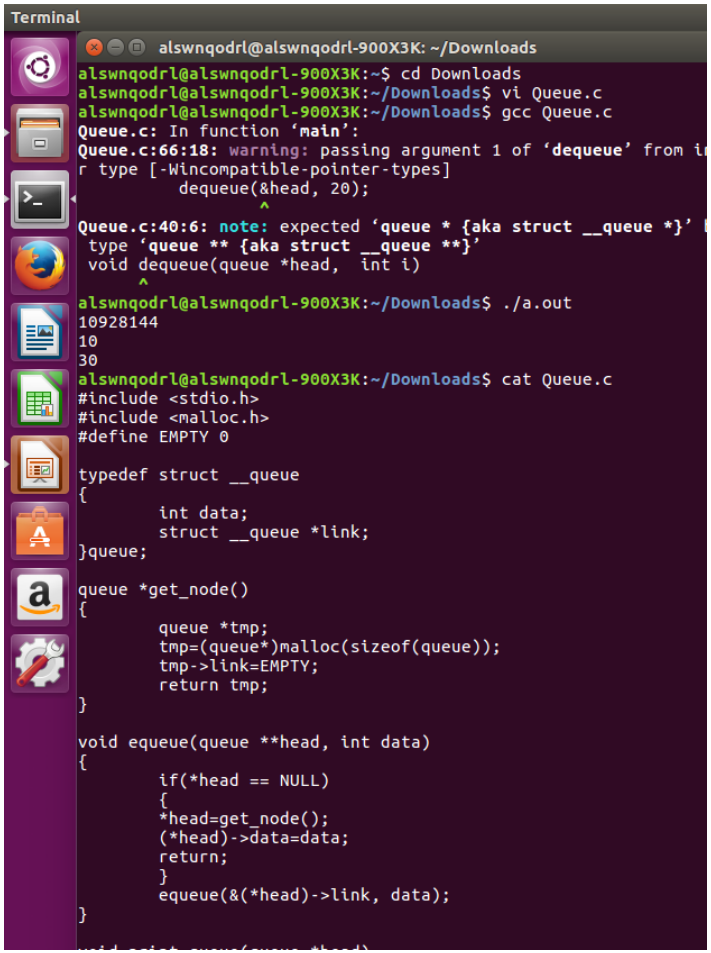
```
void push(Stack **top, int data)
{
	Stack *tmp;
	tmp = *top;
	*top = get_node();
	(*top)->data = data;
	(*top)->link = tmp;
}

int pop(Stack **top)
{
	Stack *tmp;
	int num;
	tmp= *top;
	if(*top == EMPTY)
	{
	 printf("Stack is EMPTY!!!\n");
	 return 0;
	}
	num = tmp -> data;
	*top = (*top)->link;
	free(tmp);
	return num;
}

int main(void)
{
	Stack *top=EMPTY;
	push(&top, 10);
	push(&top, 20);
	push(&top, 30);
	printf("%d\n", pop(&top));
	printf("%d\n", pop(&top));
	printf("%d\n", pop(&top));
	printf("%d\n", pop(&top));
	return 0;
}
alswnqodrl@alswnqodrl-900X3K:~/Downloads$
```

01

8일차 내용 복습(equeue
, dequeue)



01

8일차 내용 복습
(equeue, dequeue)

```
}

void print_queue(queue *head)
{
        queue *tmp = head;
        while(tmp)
        {
                printf("%d\n", tmp-> data);
                tmp=tmp->link;
        }
}

void dequeue(queue *head,  int i)
{
        queue *tmp = head;
        int num;
        while(tmp)
                {
                num=tmp->data;
                if(num == i)
                {
                        tmp=tmp->link;
                }
                else
                {
                        printf("%d\n", tmp->data);
                        tmp=tmp->link;

                return;
                }
        }
}

int main(void)
{
         queue *head=EMPTY;
         int data;
         equeue(&head, 10);
         dequeue(&head, 20);
         equeue(&head, 30);
         print_queue(head);
         return 0;
}
alswnqodrl@alswnqodrl-900X3K:~/Downloads$
```

02

8일차 내용 복습 – 그림그리기 (push)

Main 2000 →3000->4000
Top(1000)

Push top(1000)	data(10)	tmp(1000)
Get-mode tmp(3000)		
Push top(1000)	data(20)	tmp(2000)
Get-mode tmp(4000)		
Push top(1000)	data(30)	tmp(4000)

Heap

10 data(2000)	0 link
20 data(3000)	2000 link
30 data(4000)	3000 link

02

8일차 내용 복습 – 그림그리기 (pop)

Pop top(1000)	num(30)	tmp(4000)
Pop top(1000)	num(20)	tmp(3000)
Pop top(1000)	num(10)	tmp(2000)
Pop top(1000)	num( )	tmp(0)

10 data(2000)	0 link
20 data(3000)	2000 link
30 data(4000)	3000 link