



5118006-03 Data Structures

Homework 2. Knight's Travel

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Shin Hong

Outline

- Due date: 7 PM, Apr 9 Tue
- Task
 - revise `maze.c` to use generic stack
 - write `knight.c` which uses generic stack
 - make a video demo
- Submission: via LMS
 - source code files
 - video file (or URL)
- Evaluation
 - test (60%)
 - source code quality (20%)
 - video presentation (20%)

Task 1

- Rewrite `maze/maze.c` to use generic stack, instead of `int-stack`
 - genetic stack is given as `gstack.c`
- Revise the program to visually represent the solution path on the maze map
 - you can add a new function and modify `main`

Task 2



	a	b	c	d	e	f	g	h	
8									b7 e2
7		0					3		---
6					2				b7
5			1					4	c5
4									e6
3							5		g7
2					6				h5
1									g3
									e2

- A Knight moves two squares vertically and one square horizontally, or one square horizontally and two square vertically at a time
- A Knight's travel is a sequence (or path) of Knight's moves from one square to another on chessboard
- Write `knight.c` that receives two squares, and then shows a Knight's travel connecting them if exists
 - must use the genetic stack given as `gstack.c`

Video Presentation

- Take a 6-min video for reviewing the source code and testing the program
 - on both Task 1 and Task 2
 - the two team members must take video together and each one must take a part in presentation
- You can upload either one video file, an archive of multiple video files or a file indicating the URL of the video on the web

Remark

- Use of programming tools is not permitted
- No late submission will be accepted
- After submission, peer evaluation will follow
- The team members must work together at all activities for the homework
- Help desks will be offered