

Java Snake Game

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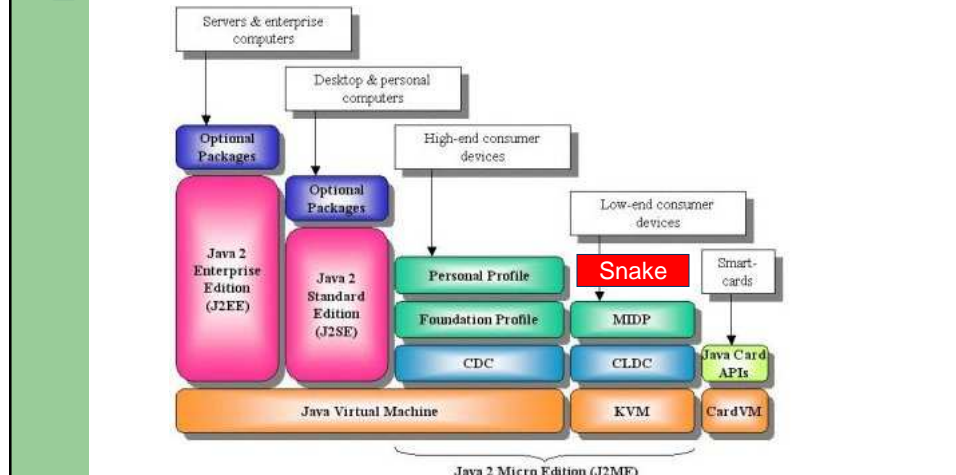
Purpose

- Have hands on experience in embedded system software design
- Java Mobile Edition (J2ME) is widely deployed in handsets nowadays
- Snake, fun and simple
- I already have a phone ready for Java
- Free development tools and emulator
- A lot of online tutorial

Snake



Java Editions



Specification to K700i

- Screen Size(176 x 220)
- Numeric keys (0-9, *, #)
- 4-way directional key
- 2 simultaneous key presses
- Heap Memory(512kB)
- Video RAM(500kB)
- No floating points



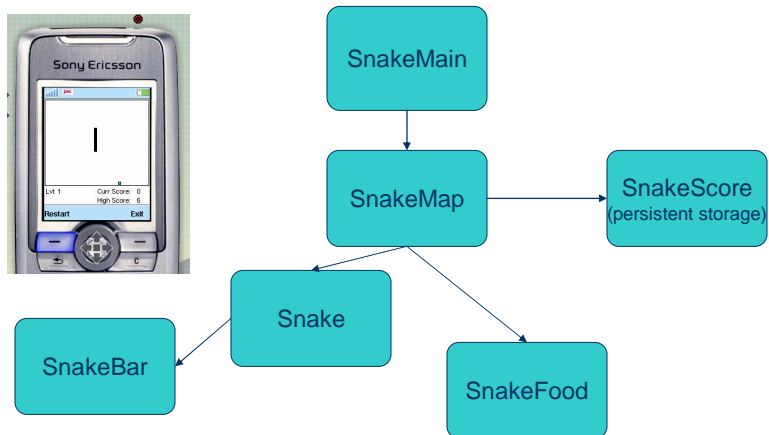
Implementation

- Reference source code in C++
- J2ME Games with MIDP2



- Robowar, my previous homework

Implementation (conc.)

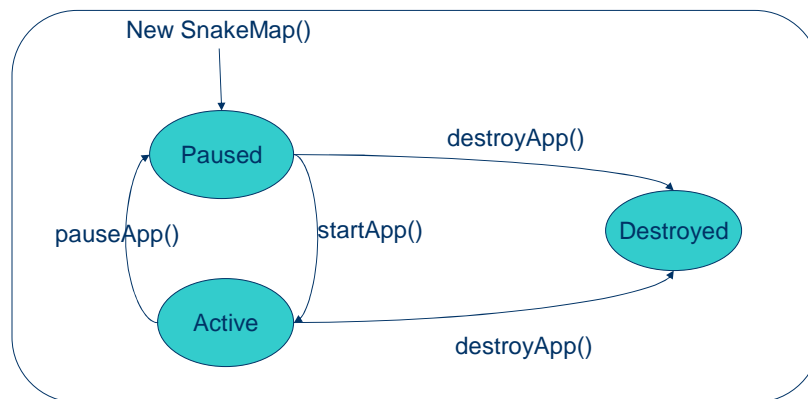


Implementation (conc.)

- SnakeMain.java:
 1. SnakeMain() – constructor, initialize necessary variables
 2. startApp() – start the SnakeMap thread
 3. pauseApp() – handle interrupts, eg. phone calls
 4. destroyApp() – destroy free up resources
 5. commandAction() – handle key press interrupts

Implementation (conc.)

Application Management Software



Implementation (Thread)

- Thread is very important in game designs
- Different from J2SE or J2EE
- No suspend, resume and stop
- Managed by application management software
- Use boolean to tell thread to pause or stop

Lessons Learned

- J2ME libraries
- J2ME Thread handling
- Game Design

Future Improvement

- Graphics (PNG)
- Sounds
- Set food as thread
- Level Adjustment
- Network Game

Conclusion

Personal thoughts on Java Mobile Edition

- High level programming language
- Good gaming API's

THANK YOU

