

TT10L

GROUP 9

Name/ID	Primary Role	Key Components Developed/Implemented
CHONG MENG HANG 242UC244JT	Server Core & IPC Architecture	<ul style="list-style-type: none">• setup_shared_memory() (mmap implementation)• Process-Shared Mutex (pthread_mutexattr) setup• The Main Server Loop (accept + fork logic)• Parent/Child process isolation strategy
YAP CHI YI 242UC244KX	Game Logic & Client Implementation	<ul style="list-style-type: none">• client.c (Receiver thread & Input parsing)• check_win() algorithm (4-in-a-row logic)• handle_client() (The main gameplay loop)• serialize_board() (Board display string generation)
TAN YONG XIN 242UC244PF	Thread Management (Logger & Scheduler)	<ul style="list-style-type: none">• logger_thread (Producer-Consumer logic)• scheduler_thread (Turn monitoring loop)• log_event() helper function• Condition Variables (pthread_cond) for non-blocking logs
THAM MEI TING	Persistence & System Stability	<ul style="list-style-type: none">• load_scores() & save_scores() (File I/O logic)

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242UC244S6		<ul style="list-style-type: none">• handle_sigchld (Zombie Reaper using waitpid)• handle_shutdown (Signal handling for clean exit)• TCP Socket setup (socket, bind, listen)