

The solutions of Task 1 will be discussed individually with each student on November 25th, 2020 via calls on MS Teams.

Checklist before you submit:

- Is my code compiling?
- Are there any compilation warnings? There shouldn't be. Moreover, you should compile with these flags and remove the resulting warnings (if any): -Wall -Wextra -pedantic -Werror
- Is my code working correctly?
- Have I tested my code in a reasonable fashion? Reasonable here means that you either use some kind of unit testing framework or write your own solution. Please note that cout-based testing is **NOT** satisfactory – you should only cout some information if tests do not pass.
- Is my code reusable and am I reusing it in shuffle implementation? Make sure that you use methods/operators/constructors that you have already implemented to mitigate code repetition.
- Is my code clean and neatly formatted?
 - remove any unnecessary commented-out code (aka dead code),
 - make sure that your naming is acceptable (that means sensible variable/method names)
- Am I using references correctly? Make sure that you pass-by-reference wherever you can rather than by copy/move (except places in which it makes sense to do so)
- Am I using const keyword correctly? Make sure that you mark references/methods/objects as const wherever it makes sense to do so (**most** of your references and methods should probably be const)
- Is my code memory-leak free? You can use valgrind to check this property.
- Is my code undefined behavior free? You can compile your code with the -fsanitize=undefined flag and run your tests – if it doesn't crash then you're most likely good to go.

Files to submit:

- Source code (.cc/.cpp/.hpp), **including** tests

Files **NOT** to submit:

- Editor configuration files/directories
- binaries/object files

Please make sure that you click *submit* (upper right corner in teams app) after you have selected all files – otherwise the submission won't be registered.