

download_chromosomes
output → chromosomes/{chromosome}.fa.gz

concatChr
↔ input chromosomes/1.fa.gz chromosomes/10.fa.gz chromosomes/11.fa.gz chromosomes/12.fa.gz chromosomes/13.fa.gz chromosomes/14.fa.gz chromosomes/15.fa.gz chromosomes/16.fa.gz chromosomes/17.fa.gz chromosomes/18.fa.gz chromosomes/19.fa.gz chromosomes/2.fa.gz chromosomes/20.fa.gz chromosomes/21.fa.gz chromosomes/22.fa.gz chromosomes/3.fa.gz chromosomes/4.fa.gz chromosomes/5.fa.gz chromosomes/6.fa.gz chromosomes/7.fa.gz chromosomes/8.fa.gz chromosomes/9.fa.gz chromosomes/MT.fa.gz chromosomes/X.fa.gz chromosomes/Y.fa.gz
output → genome/genome.fa.gz

gunzipGenome
↔ input genome/genome.fa.gz
output → genome/genome.fa

index
↔ input genome/genome.fa
output → genome_index/genomeParameters.txt

download_sra
output → sraFiles/{sample}.1

makefastq
↔ input sraFiles/{sample}.1
output → fastqFiles/{sample}.1_1.fastq fastqFiles/{sample}.1_2.fastq

mapping
↔ input fastqFiles/{sample}.1_1.fastq fastqFiles/{sample}.1_2.fastq genome_index/genomeParameters.txt
output → bamfiles/{sample}.bam

downloadGenomeAnnotation
output → file_genome_annotation/Homo_sapiens.GRCh38.101.chr.gtf

counting
↔ input bamfiles/{sample}.bam file_genome_annotation/Homo_sapiens.GRCh38.101.chr.gtf
output → countfiles/{sample}.counts

analyse_stat_R
↔ input countfiles/SRR628582.counts countfiles/SRR628583.counts countfiles/SRR628584.counts countfiles/SRR628585.counts countfiles/SRR628586.counts countfiles/SRR628587.counts countfiles/SRR628588.counts countfiles/SRR628589.counts
output → fichier.Rdata

all
↔ input fichier.Rdata