SUPPLEMENTARY LISTING. GENERATE SUBGRAPH

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Input: graph, reference, start_node, end_node, window, depth, tails, minimal_edge_weight
Output: subgraph

subgraph ← empty graph

target_chain ←nodes chain from reference genome between (start_node - window) and (end_node + window)

add base_chain to subgraph

deviating_paths ← find all deviating paths connected with target_chain

for each path in deviating_paths do

    if length of the path <= depth do
        add path to the subgraph

else do

path_tails ←left and right fragments of the path with length tails
add path_tails to the subgraph
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for each edge in subgraph do

if edge weight < minimal_edge_weght **do**delete edge from the subgraph

clear the subgraph from disconnected fields

return subgraph