Interview Problem

A "journey" is a sequence of flights (at least one). Example: **SOF-BRU-LON-NYC**. A journey can be broken into one or more "tickets", such that a ticket can contain one or more **sequential** flights. For example the above journey can be broken into tickets in the following ways:

breakup 1:

* ticket 1 - SOF-BRU-LON-NYC

breakup 2:

* ticket 1 - SOF-BRU-LON
* ticket 2 - LON-NYC

breakup 3:

* ticket 1 - SOF-BRU
* ticket 2 - BRU-LON-NYC

breakup 4:

* ticket 1 - SOF-BRU
* ticket 2 - BRU-LON
* ticket 3 - LON-NYC

Provide a code snippet(in a language by your choice) that given a number of flights N generates all possible breakups of a journey with N flights into tickets.

A breakup consists of the indices of the flights that comprise the ticket. For the above example:

Input N=3

Output

Breakup 1

* 0 1 2

Breakup 2

* 0 1
* 2

Breakup 3

* 0
* 1 2

Breakup 4

* 0
* 1
* 2