Merging

Merge.

- Keep track of smallest element in each sorted half.
- Insert smaller of two elements into auxiliary array.
- Repeat until done.

smallest

smallest

A	G	L	O	R

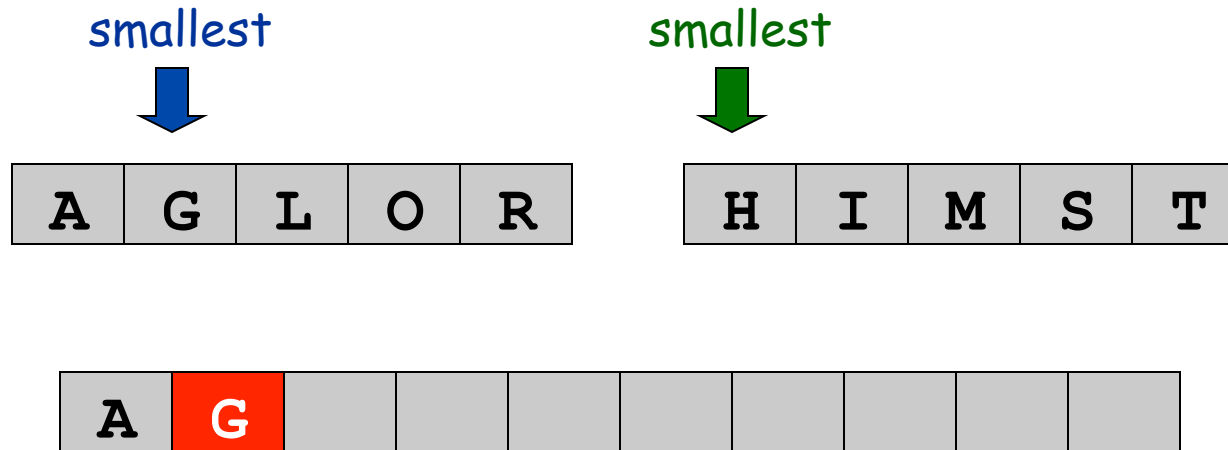| H	I	M	S	T

A									

auxiliary array

Merging

Merge.

- Keep track of smallest element in each sorted half.
- Insert smaller of two elements into auxiliary array.
- Repeat until done.

smallest   smallest

| A | G | L | O | R | | H | I | M | S | T |

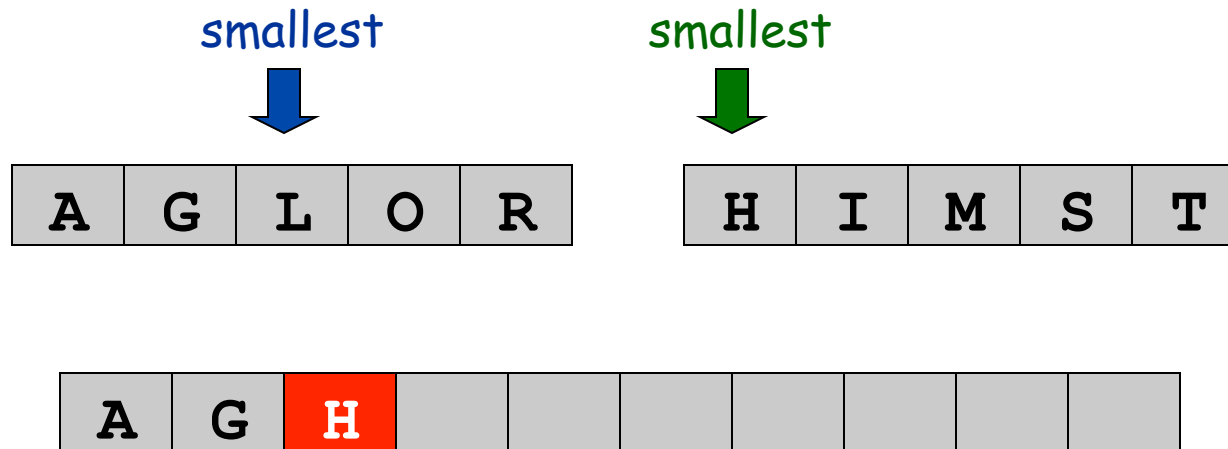| A | G | | | | | | | | | auxiliary array

Merging

Merge.

- Keep track of smallest element in each sorted half.
- Insert smaller of two elements into auxiliary array.
- Repeat until done.

smallest   smallest

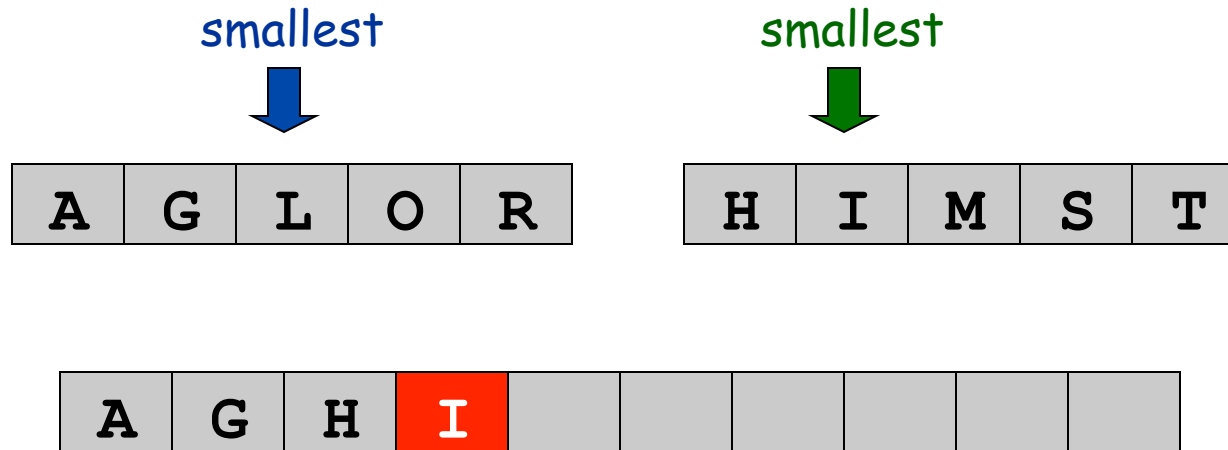| A | G | L | O | R | | H | I | M | S | T |

| A | G | H | | | | | | | | | auxiliary array

Merging

Merge.

- Keep track of smallest element in each sorted half.
- Insert smaller of two elements into auxiliary array.
- Repeat until done.

smallest

smallest

A	G	L	O	R

H	I	M	S	T

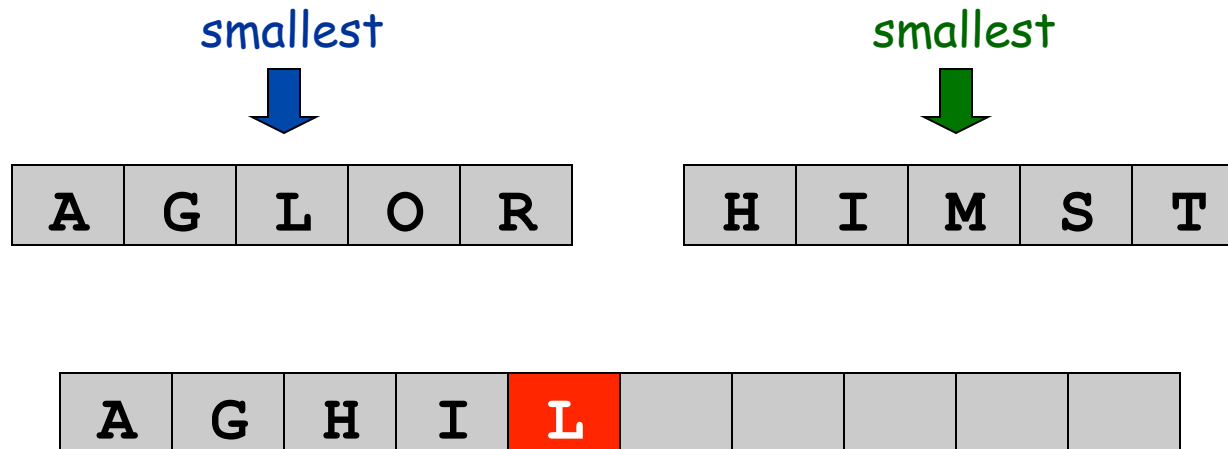| A	G	H	I						

auxiliary array

Merging

Merge.

- Keep track of smallest element in each sorted half.
- Insert smaller of two elements into auxiliary array.
- Repeat until done.

smallest   smallest

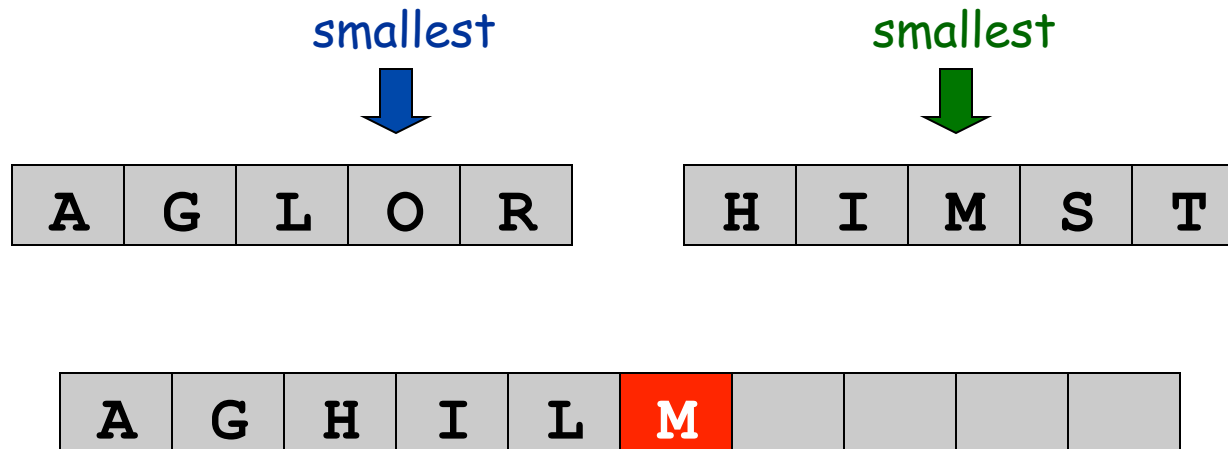| A | G | L | O | R | | H | I | M | S | T |

| A | G | H | I | L | | | | | | auxiliary array

Merging

Merge.

- Keep track of smallest element in each sorted half.
- Insert smaller of two elements into auxiliary array.
- Repeat until done.

smallest

smallest

A	G	L	O	R

H	I	M	S	T

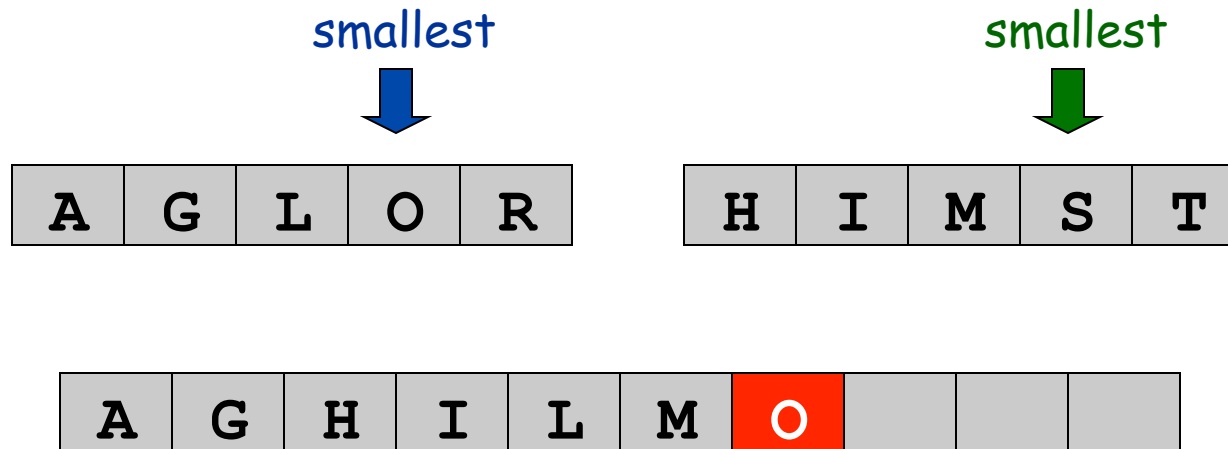| A	G	H	I	L	M				

auxiliary array

Merging

Merge.
- Keep track of smallest element in each sorted half.
- Insert smaller of two elements into auxiliary array.
- Repeat until done.

smallest   smallest

| A | G | L | O | R | | H | I | M | S | T |

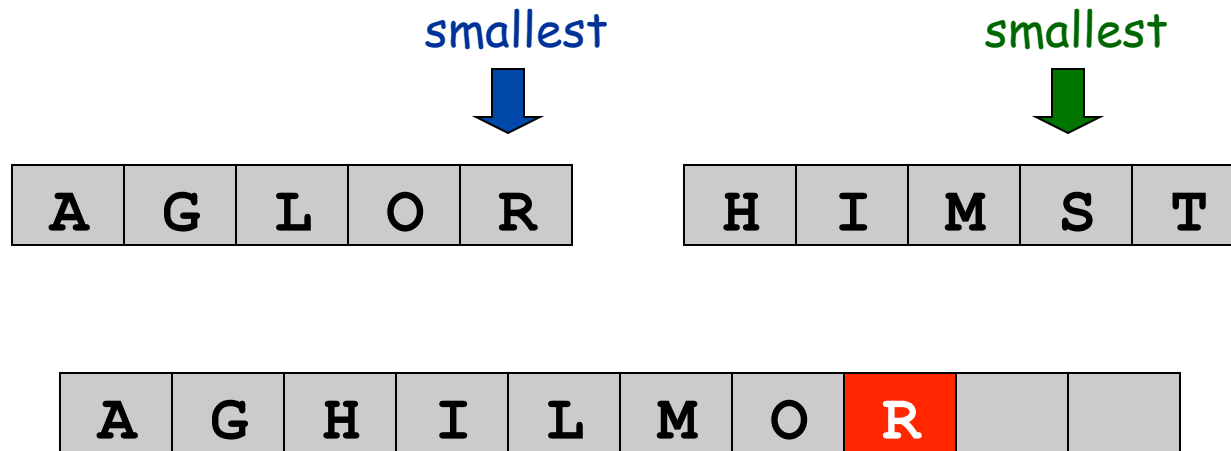| A | G | H | I | L | M | O | | | | auxiliary array

Merging

Merge.

- Keep track of smallest element in each sorted half.
- Insert smaller of two elements into auxiliary array.
- Repeat until done.

smallest

smallest

A	G	L	O	R

H	I	M	S	T

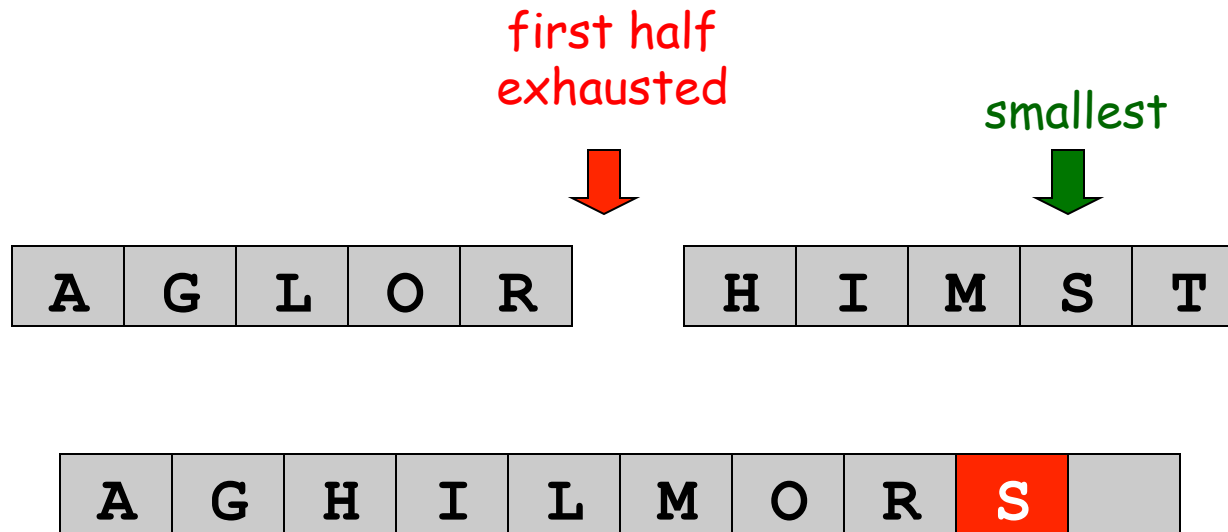| A	G	H	I	L	M	O	R		

auxiliary array

Merging

Merge.

- Keep track of smallest element in each sorted half.
- Insert smaller of two elements into auxiliary array.
- Repeat until done.

first half
exhausted

smallest

A	G	L	O	R		H	I	M	S	T

A	G	H	I	L	M	O	R	S	

auxiliary array

Merging

Merge.

- Keep track of smallest element in each sorted half.
- Insert smaller of two elements into auxiliary array.
- Repeat until done.

first half
exhausted

smallest

| A | G | L | O | R | | H | I | M | S | T |

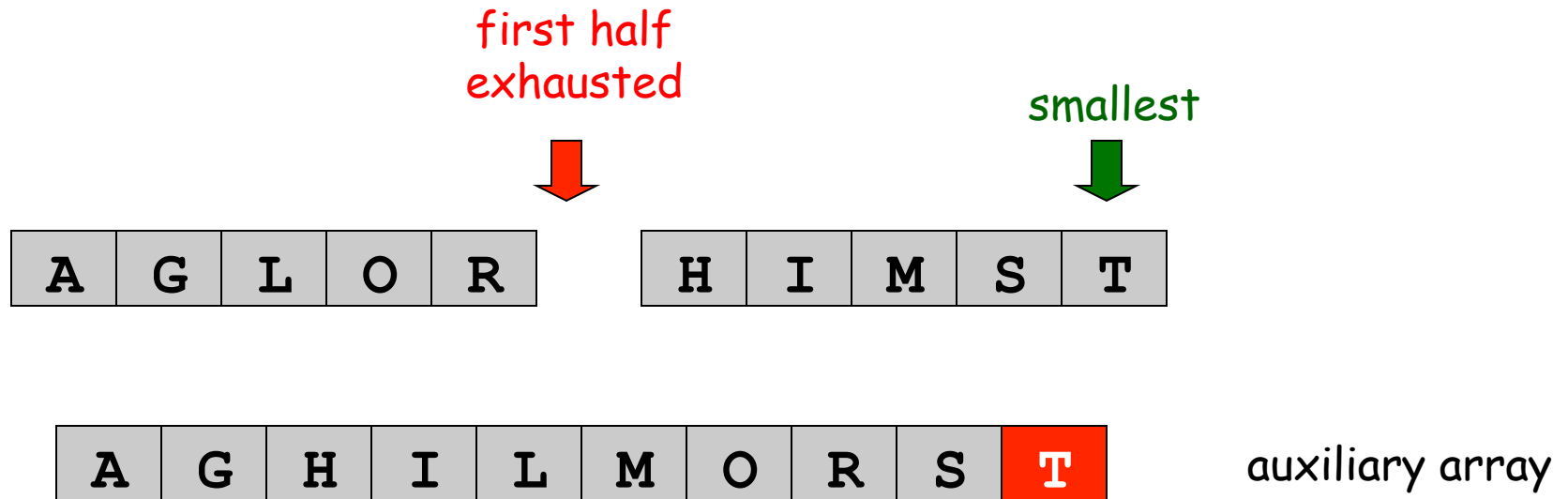| A | G | H | I | L | M | O | R | S | T | auxiliary array

Merging

Merge.

- Keep track of smallest element in each sorted half.
- Insert smaller of two elements into auxiliary array.
- Repeat until done.

first half
exhausted

second half
exhausted

| A | G | L | O | R | | H | I | M | S | T |

| A | G | H | I | L | M | O | R | S | T | auxiliary array