2.1 Selection Sort Demo

click to begin demo
In iteration $i$, find index $\min$ of smallest remaining entry.
• Swap $a[i]$ and $a[\min]$. 

Selection sort

remaining entries
Selection sort

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remaining entries
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\[ \begin{array}{c}
\text{i} \\
\begin{array}{cccccccc}
10 & 5 & 3 & 8 & 4 & 7 & 9 & 6 \\
\hline
2 & 2 & 2 & 2 & 2 & 2 & 2 & 2 \\
\end{array}
\end{array} \]
Selection sort

• In iteration $i$, find index $\text{min}$ of smallest remaining entry.
• Swap $a[i]$ and $a[\text{min}]$. 

![Diagram showing selection sort process with playing cards](image)
Selection sort

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![Diagram of selection sort process with playing cards and indices]
Selection sort

- In iteration $i$, find index $\min$ of smallest remaining entry.
- Swap $a[i]$ and $a[\min]$. 

![Diagram of selection sort with cards in final order and remaining entries]
Selection sort

- In iteration $i$, find index $\min$ of smallest remaining entry.
- Swap $a[i]$ and $a[\min]$. 

In final order

remaining entries
Selection sort

- In iteration $i$, find index $\text{min}$ of smallest remaining entry.
- Swap $a[i]$ and $a[\text{min}]$. 

![Diagram of selection sort with cards]

- Remaining entries
- In final order
Selection sort

- In iteration $i$, find index $\min$ of smallest remaining entry.
- Swap $a[i]$ and $a[\min]$.

![Diagram showing the selection sort process with cards in final order and remaining entries.](image-url)
In iteration $i$, find index $\min$ of smallest remaining entry.

Swap $a[i]$ and $a[\min]$.

Selection sort

in final order

remaining entries
Selection sort

- In iteration $i$, find index $\text{min}$ of smallest remaining entry.
- Swap $a[i]$ and $a[\text{min}]$. 

![Diagram showing cards in final order and remaining entries in iteration $i$ and $\text{min}$]
Selection sort

- In iteration $i$, find index $\text{min}$ of smallest remaining entry.
- Swap $a[i]$ and $a[\text{min}]$. 

![Diagram of selection sort with playing cards]

- in final order
- remaining entries
Selection sort

• In iteration $i$, find index $\min$ of smallest remaining entry.
• Swap $a[i]$ and $a[\min]$.
Selection sort

- In iteration $i$, find index $\min$ of smallest remaining entry.
- Swap $a[i]$ and $a[\min]$.
• In iteration \( i \), find index \( \min \) of smallest remaining entry.
• Swap \( a[i] \) and \( a[\min] \).
Selection sort

- In iteration \(i\), find index \(\min\) of smallest remaining entry.
- Swap \(a[i]\) and \(a[\min]\).
Selection sort

- In iteration $i$, find index $\text{min}$ of smallest remaining entry.
- Swap $a[i]$ and $a[\text{min}]$. 

![Image of playing cards with indices and selection process]
Selection sort

- In iteration $i$, find index $\text{min}$ of smallest remaining entry.
- Swap $a[i]$ and $a[\text{min}]$. 

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In final order: 2, 3, 4, 5, 6, 7, 8, 9, 10

Remaining entries: 8, 9, 10
Selection sort

- In iteration $i$, find index $\min$ of smallest remaining entry.
- Swap $a[i]$ and $a[\min]$. 

![Diagram of selection sort with cards representing the process.](image)
Selection sort

- In iteration \(i\), find index \(\min\) of smallest remaining entry.
- Swap \(a[i]\) and \(a[\min]\).
Selection sort

- In iteration $i$, find index $\text{min}$ of smallest remaining entry.
- Swap $a[i]$ and $a[\text{min}]$. 

**Diagram:**
- In final order
- Remaining entries
Selection sort

- In iteration $i$, find index $\text{min}$ of smallest remaining entry.
- Swap $a[i]$ and $a[\text{min}]$. 

![Selection sort diagram with cards and indices](image)
Selection sort

- In iteration $i$, find index $\min$ of smallest remaining entry.
- Swap $a[i]$ and $a[\min]$. 
Selection sort

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- Swap $a[i]$ and $a[\text{min}]$. 

![Card representation of selection sort](image)
Selection sort

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Selection sort

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In final order
Selection sort

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- Swap $a[i]$ and $a[\min]$. 

![Playing cards image](sorted)