Lazyload.

https://css-tricks.com/the-complete-guide-to-lazy-loading-images/

Based on CSS tricks post, Lazyload is:

“Lazy Loading is a set of techniques in web and application development that defers the loading of resources on a page to a later point in time—when those resources are actually needed instead of loading them up front. These techniques help in improving performance, better utilization of the device’s resources and reducing associated costs.”

Loading images using HTML tag.

Using the attribute src this will load the image automatically to the site, even though is not in the current view port.

So use the attribute data-”something” to prevent images from loading. Then add a su-fix.
For instance data-src=”path/image.jpg”.

Check if the image has entered the Viewport using Javascript and the Events Scroll, Resize and Orientation Change.

Whenever any of these events are triggered we check which of the current images are in the viewport. This is done using the image’s top offset, the current document top position and the window height, if any image is within the range, we pick the URL image and change the attribute “data-src” to “src”.

As the scroll event is triggered many times rapidly, is a good idea to set a timeout to the lazyload function, so it does not block other functions that are in the same thread.

Set the attribute SRC to the first images in our HTML, to that the user does not have to wait to the Javascript to load and show the first images.

Intersection Observer API:
https://developer.mozilla.org/en-US/docs/Web/API/Intersection_Observer_API

Is an asynchronously way to observe changes, that checks if a target element is intersected by an ancestor element or a top-level document's viewport.

Using the property "IsIntersecting", we can change the attribute "data-something" to "src". The difference with this Observer and the manual way in Javascript is that every time the events are trigger the performance and Javascript has to calculate many things and this might affect performance.

Lazy Load using Background-image, the trick is to apply the Background-image property with CSS to an element, until that element comes into the viewport.
"Background-Image: none" and when image is in the viewport "Background-Image: url(path/)"

Robin Osborne's Progressively Enhanced:
Achieved using Javascript, considered the enhancement over regular HTML and CSS.

Blur Images for performance.
https://www.sitepoint.com/how-to-build-your-own-progressive-image-loader/

Lozad.js is a library that makes a lazy load for images.
https://github.com/ApoorvSaxena/lozad.js

Yall.js is a feature-packed lazy loading script for images, videos and Iframes.
https://github.com/malchata/yall.js

Polyfill for the Observer.
https://github.com/w3c/IntersectionObserver/tree/master/polyfill

Intersection Observer:
This observer requires a config object, with three main elements or properties.

Root: Element that is used for the observation, or the viewport.

Root Margin: Defines margin around your root element that extends or shrinks the frame. Similar to margin from CSS. rootMargin: ‘50px 20px 10px 40px’ can be expressed in %.

Threshold: Defines when the element is wanted to react to the observer.

“Threshold: 0” Default value, should react when the very last or very last pixel of an observed element hits one of the borders of the Frame.

“Threshold: 0.5” Observer should be fired when the 50% of an observed element hits the frame.

Use for Observer.
https://www.smashingmagazine.com/2018/01/deferring-lazy-loading-intersection-observer-api/