

# 1 Kursusgang 7 - Delegates

1. Define a delegate type named `StringJoin` with two string parameters and return-type string.
2. Define a method `JoinThree` parameterized with three strings and a `StringJoin`, which joins the strings from left to right.
3. Define a method `JoinAllStrings`, parameterized by a list of strings and a `StringJoin`, which joins all strings in the list from left to right.
4. Generic Join
  - Define a generic delegate type named *Join* with a single type parameter *T*, with two parameters and return-type of type *T*.
  - Similar to exercise 3, but generic, make a *JoinAll* method which can join any list of type *T*, using the delegate type *Join*
5. Write a generic method `Exists(Predicate<T> f, T[] a)` that takes a type parameter *T* and two arguments: a unary lambda expression *f* and an array *a* of type *T*. The method should return true if the array contains an element for which the predicate evaluates to true. Otherwise, it should return false.
6. Write a generic method `twice(DELEGATETYPE f, T v)` with type parameter *T* and two arguments: a `DELEGATETYPE` from the standard library *f* and a value *v* of type *T*. The method should return the result of applying *f* twice to the argument.