**A Banach algebra $A$ that is a topological direct sum (as a Banach space) of a pair of its Banach subalgebras**

**which are isometrically isomorphic to $A$.**

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Consider $A = l^\infty$. Define $E = \{(x_n) \in l^\infty \ ; \ x_{2n} = 0\}$ and $F = \{(x_n) \in l^\infty \ ; \ x_{2n-1} = 0\}$. Obviously $E$ and $F$ are closed subalgebras of $l^\infty$. Moreover $A = E + F$ and $E \cap F = \{0\}$. So $E$ is a complemented subspace of $A$ with $F$ as a complementary subspace. In addition, $\varphi((x_1, x_2, x_3, \ldots)) = (0, x_1, 0, x_2, 0, x_3, \ldots)$ is an isometrically isomorphism between $l^\infty$ and $E$. One can similarly define an isomorphism between $l^\infty$ and $F$. Note that if $E$ is a complemented infinite dimensional subspace of $l^\infty$ then $E$ is isomorphic to $l^\infty$. (cf. [J. Lindenstranss, On complemented subspaces of $m$. Israel J. Math., 5, 1967, 153-156])